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oceanographic cruise to the bering and chukchi seas,  
summer 1949

PART IV: PHYSICAL OCEANOGRAPHIC STUDIES: VOL. 2. DATA REPORT

OCEANOGRAPHY SECTION, USNEL, AND  
PACIFIC OCEANOGRAPHIC GROUP, CANADA

U. S. NAVY ELECTRONICS LABORATORY, SAN DIEGO, CALIFORNIA  
A BUREAU OF SHIPS LABORATORY

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*Oceanographic Cruise to the Bering and Chukchi Seas, Summer 1949: Part IV: Physical Oceanographic Studies: Vol. 2. Data Report*, by Oceanography Section, USNEL, and Pacific Oceanographic Group, Canada. U. S. Navy Electronics Laboratory, San Diego, California.

## errata

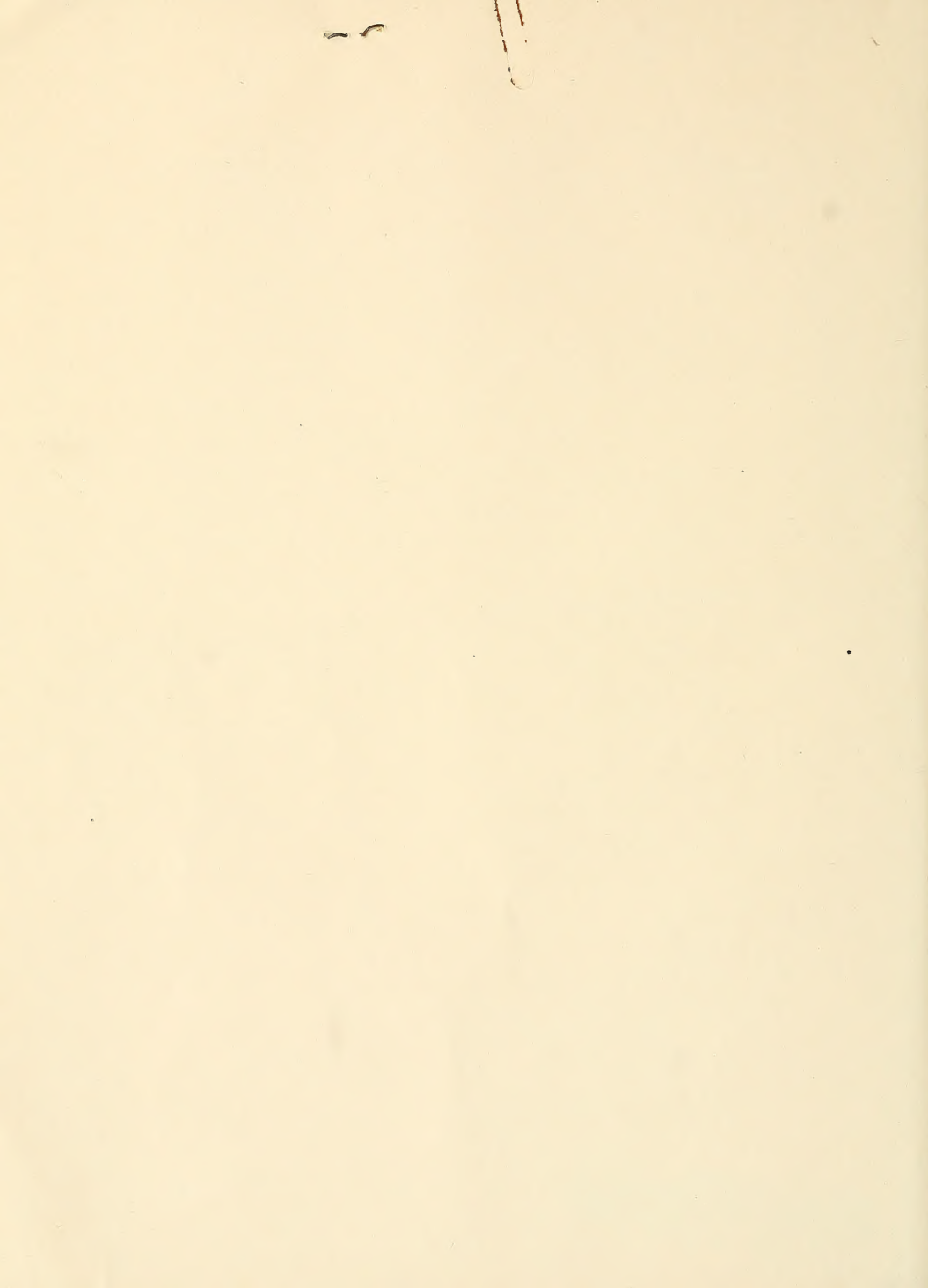
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In table 2, "Oceanographic data for stations occupied by HMCS Cedarwood, summer 1949," make the following corrections:

1. Page 7, Station 48: Temperature entry for 84-foot depth should be 41.3 instead of 41.6
2. Page 8, Station 69: Salinity entry for 36-foot depth should be 32.38 instead of 32.58
3. Page 16, Station 181: Salinity entry for 10-foot (interpolated) depth should be 31.38 instead of 31.28
4. Page 16, Station 190: Temperature entry for 51-foot depth should be 45.5 instead of 45.4
5. Page 17, Station 195: Salinity entry for 20-foot (interpolated) depth should be 31.32 instead of 32.32
6. On page 23 (foldout) the caption for figure 5 should be on left-hand side of page; it refers to the three sections (A, B, and C) at the far left.

In the group of six sections on the right-hand side of page 23, the three left sections are part (A) of figure 6 and the three right sections are part (B) of figure 6.







## **preface**

This volume presents the basic oceanographic station data obtained in the shallow eastern Bering and Chukchi Seas and eastern Bering Strait during a joint Canadian-U. S. scientific expedition in the summer of 1949. The description of the cruise and analysis of the data are contained in volume 1. The data are presented here in tabular form for the information of those interested in the details of the studies. For conclusions drawn from these data and for discussion of the findings, the reader is referred to volume 1.

## **administrative information**

The oceanographic program was carried out as a joint investigation by oceanographers of the Pacific Oceanographic Group and Defense Research Board of Canada and the U. S. Navy Electronics Laboratory. The reduction of the data, by prior agreement, has been carried out at NEL.

Personnel who contributed to the many phases of the task are as follows:

### **OBSERVATIONAL PROGRAM ABOARD HMCS CEDARWOOD**

Pacific Oceanographic Group and Defense Research Board, Canada: J. P. Tully, Scientist in Charge; F. G. Barber; A. J. Dodimead; R. H. Herlinveaux; G. L. Pickard. U. S. Navy Electronics Laboratory: E. C. LaFond; R. M. Lesser; J. C. Roque; and J. F. T. Saur.

### **REDUCTION OF DATA**

U. S. Navy Electronics Laboratory: A. J. Carsola; B. E. Holtmark; R. M. Lesser; J. F. T. Saur.

The participation of personnel of the Propagation Division of NEL in the observational program in the summer of 1949 and the reduction of data (1950 and 1951) were accomplished under IO 15401, NE 120221-3 (NEL L4-1). The report covers work to January 1954 and was approved for publication 27 May 1954. The formal publication of data has been delayed until completion and publication of the final analysis.

## **explanation of data**

### **OCEANOGRAPHIC STATIONS**

The locations of oceanographic stations occupied in the shallow regions (shelf area) of the eastern Bering and Chukchi Seas and in eastern Bering Strait are shown in figure 1. At most of the stations temperatures were obtained with a bathythermograph and water samples for chlorinity titration by water bottles without reversing thermometers (see volume 1 for details). From several locations made early in the survey in the Eastern Bering Sea only bathythermograms are available. These locations are indicated in the figures but the data have not been tabulated. Bathythermograms are filed in the Bathythermograph Section, Scripps Institution of Oceanography, La Jolla, California, as Cruise No. 606.

## OCEANOGRAPHIC STATION DATA

Oceanographic station data are given in table 1. Units of auxiliary data are, in general, self explanatory. Wind force is in Beaufort Scale; sea state and visibility are in standard code.\*

In table 2 (oceanographic data), observed values of temperature and salinity are listed at depths where water samples were taken. Depths in feet and temperatures in degrees Fahrenheit have been retained. The values were obtained from bathythermograms after adjustment of the recorded surface temperatures to those observed with a calibrated mercury bucket thermometer. Depths for interpolated values of temperature, salinity, and density (in  $\sigma_t$  units) were selected to show the detail of the structure in this shallow region. Since the bathythermograph was used to obtain temperature, those values of temperature given as "interpolated" can be considered as "observed," whereas salinity and  $\sigma_t$  are true interpolated values.

## VERTICAL SECTIONS

Vertical sections of temperature, salinity, and density are shown in figures 2 through 13 for the major sections traversed by HMCS CEDARWOOD for comparison with the schematic sections used in volume 1 of this report. The large vertical exaggeration of these sections (varying from about 7500 to 1 at 60°N latitude to 5100 to 1 at 70°N) was chosen to show adequately the extreme vertical gradients which are encountered. This exaggeration has the disadvantage, however, of distorting the horizontal changes, which were also large. This distortion must be kept in mind when examining the sections.

## HORIZONTAL SECTIONS

Horizontal distributions of temperature and salinity at the surface and at 80 feet (approximately 25 meters) depth are given for the Chukchi Sea only (figs. 14-17). This is the only region where coverage was adequate to show the variation of the distributions with time during the expedition. The coverage differs somewhat between the two sets of observations, the primary difference being that the northernmost station reached was only about 70°15'N during the period of 20-26 August as opposed to 73°N during the earlier period (9-15 August). The reader is referred to volume 1 for mean distributions for both the Eastern Bering Sea and Eastern Chukchi Sea.

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\* Hydrographic Office, H. O. Publication 606-c *Bathythermograph Observations* 1951.



TABLE 1. Auxiliary data on oceanographic stations occupied by HMCS CEDARWOOD.

Sta. No.	North Lat. (deg., min.)	West Long. (deg., min.)	Date (1949)	Time (GCT)	BT No.	Weather	Cloud		Wind		Air Temp. (° F)		Sea State	Vis.	Depth (fm)
							Form	Tenths	Dir. (deg.)	Force	Dry	Wet			
*31	61 23	170 24	28 Jul	0942	93	Cloudy	St	10	120	1	46.2	45.8	2	7	24.5
32	62 48	170 22	28 Jul	1920	94	Cloudy	St	10	200	1	43.0	42.5	2	8	24
33	62 54	171 43	29 Jul	0050	96	Cloudy	St	10	200	4	44.5	43.9	2	3	26
34	63 10	172 45	29 Jul	0502	98	Fog, sky not discernible	St	10	210	4	43.0	43.0	3	3	30
35	63 19	173 13	29 Jul	0744	101	Fog	St	10	220	3	41.0	41.0	3	2	35
36	65 59	171 32	29 Jul	1405	105	Overcast	St	10	190	4	43.3	43.0	2	—	15
37	64 46	169 49	29 Jul	2137	113	Cloudy	St	10	210	3	42.0	41.5	3	7	24.5
38	65 29	168 17	30 Jul	0525	119	Cloudy	St	10	130	5	41.0	40.5	—	6	29
39	65 40	168 33	30 Jul	1009	121, 122	Fog	St	10	170	5	41.0	41.0	3	3	28
40	65 43	168 52	30 Jul	1200	124	Fog	St	10	180	5	42.2	42.0	—	2	26
41	63 20	168 27	6 Aug	0622	149	Cloudy	As	10	190	3	44.0	43.2	2	8	18.5
42	63 32	168 04	7 Aug	0122	153	Cloudy	St	10	220	2	45.4	44.0	2	7	16
43	63 59	167 00	7 Aug	0618	157	Drizzle	St	10	170	2	45.7	45.5	2	2	18
44	64 22	165 39	7 Aug	1146	162	Cloudy	St	10	180	2	49.0	48.0	2	8	12.5
45	64 27	165 35	8 Aug	1022	164, 165	Slight rain	St	10	310	1	50.5	49.0	2	7	11
46	64 22	166 13	8 Aug	1230	167	Cloudy	St	10	290	2	49.3	48.2	2	8	15
47	64 32	166 42	8 Aug	1411	168, 170	Cloudy	St	10	310	2	48.0	46.0	2	8	14
48	64 43	167 05	8 Aug	1558	171, 172	Cloudy	St	10	290	2	47.5	47.0	2	7	14
49	64 54	167 30	8 Aug	1750	173, 174	Partly cloudy	Sc-Ac-Cc	9	310	3	46.8	46.8	3	8	18
50	65 04	167 54	8 Aug	2001	175, 176	Overcast	St	10	340	3	45.0	44.5	3	8	25
51	65 10	168 22	8 Aug	2153	178	Partly cloudy	Ac	8	340	3	46.0	45.0	3	9	27
52	65 17	168 42	8 Aug	2315	180	Partly cloudy	Ac	4	330	3	46.3	45.0	2	8	31
53	65 29	168 24	9 Aug	0123	182	Cloudy	Ac	6	330	3	44.9	44.2	2	8	32.5
54	65 34.5	168 07	9 Aug	0251	184	Cloudy	St	5	350	2	48.5	47.0	1	8	16.5
55	65 35.5	168 06.5	9 Aug	0535	186	Overcast	St	10	290	1	47.5	46.2	1	6	4.5
56	65 35.5	168 06.5	9 Aug	0615	187	Cloudy	St	10	290	1	47.5	46.2	1	6	4.5
57	65 35.5	168 06.5	9 Aug	0810	188	Partly cloudy	Cc	3	290	1	47.5	46.2	1	8	4.5
58	65 35.5	168 06.5	9 Aug	0925	189	Partly cloudy	Cc	2	290	1	47.5	46.2	1	8	4.5
59	65 38.4	168 17.5	9 Aug	1323	190, 191	Cloudy	St	10	220	3	46.7	46.0	1	8	23
60	65 38.9	168 30	9 Aug	1435	192, 193	Partly cloudy	As-St	10	230	2	45.0	43.5	1	8	29
61	65 57.5	168 30	9 Aug	1645	194, 195	Cloudy	As-St	10	190	2	46.0	45.5	2	8	29
62	66 16	168 30	9 Aug	1048	196, 197	Cloudy	As-St	10	200	2	44.8	44.3	2	8	29.3
63	66 23	167 58	9 Aug	2030	198, 199	Cloudy	St	10	200	3	46.3	45.0	2	8	12.5
64	66 29	167 32	9 Aug	2157	200, 201	Cloudy	As	10	210	3	47.0	45.7	2	8	15
65	66 38	166 49	9 Aug	2343	202, 203	Cloudy	As	10	190	3	47.5	46.1	2	8	18
66	66 48	166 03	10 Aug	0210	204, 205	Cloudy	Cs-As	7	190	1	48.0	46.9	1	8	12
67	67 00	165 16	10 Aug	0405	206, 207	Cloudy	Sc	1							
68	67 12	166 05	10 Aug	0725	208, 209	Cloudy	Cs-As-Sc	9	180	1	50.4	48.5	1	8	14
69	67 23	166 52	10 Aug	1039	210, 211	Drizzle	St	10	180	1	46.0	45.5	1	8	23
70	67 34	167 39	10 Aug	1334	212, 213	Drizzle	St	10	190	2	44.5	44.3	1	8	25
71	67 45	168 24	10 Aug	1625	214, 215	Slight drizzle	St	10	100	2	42.6	42.5	2	7	26
72	68 03	167 39	10 Aug	1955	216, 217	Cloudy	Sc-St	10	090	4	45.5	45.0	3	7	31
73	68 09	167 21	10 Aug	2146	218	Cloudy	St	10	100	4	46.8	45.1	—	7	27
74	68 55.5	166 00	11 Aug	1125	219, 220	Cloudy	St	8	170	3	51.0	46.5	2	7	7.5
75	68 55.5	166 00	11 Aug	1330	221	Cloudy	As	2							
76	68 55.5	166 00	11 Aug	1533	222	Rain	Sc	10	160	3	51.0	45.0	2	8	7.5
77	68 55.5	166 00	11 Aug	1738	223	Cloudy	Sc	10	160	6	49.0	43.0	2	8	8.5
78	68 55.5	166 00	11 Aug	1955	224	Cloudy	Sc	10	180	4	50.0	44.2	2	8	8.5
79	69 14	165 53	11 Aug	2145	225, 226	Cloudy	Sc	10	170	4	47.0	46.0	3	8	17
80	69 33	165 48	11 Aug	2353	227, 228	Cloudy	Sc	10	190	7	45.5	43.0	4	7	22
81	69 53	165 43	12 Aug	0209	229, 230	Cloudy	Sc	10	200	7	43.0	40.0	4	8	25
82	70 11	165 38	12 Aug	0424	231, 232	Cloudy	Sc	10	180	4	40.5	40.1	4	8	25
83	70 30	165 32	12 Aug	0638	233, 234	Cloudy	Sc	10	180	5	40.2	39.7	4	8	25
84	70 46	166 07	12 Aug	0904	235, 236	Cloudy	Sc	10	200	7	39.8	39.5	—	8	24
85	71 00	166 29	12 Aug	1135	237, 238	Slight rain	Sc	10	180	5	41.0	40.7	5	6	26
86	71 24	166 24	12 Aug	1350	239, 240	Cloudy	St	10	190	4	41.0	40.5	4	5	26.5
87A	71 42	166 20	12 Aug	1552	241	Cloudy	St	10	230	3	40.0	39.5	4	5	26.5
87B	72 02	166 20	12 Aug	1813	242, 243	Slight drizzle	St	10	270	3	37.2	36.7	3	6	27
88	72 22	166 20	12 Aug	2050	244, 245	Slight drizzle	Sc	10	270	3	35.0	34.5	3	7	28
89	72 43	166 15	12 Aug	2320	246, 247	Cloudy	Sc	10	300	3	34.0	33.5	3	7	30
90	72 50	166 12	13 Aug	0115	248, 249	Cloudy	Sc	10	300	2	32.5	32.0	1	7	30.5

\* Stations 1-30 were occupied in the deep Bering Sea, and are not included in this report; data for station 141 are not available.

TABLE 1. (Continued)

Sta. No.	North Lat. (deg., min.)	West Long. (deg., min.)	Date (1949)	Time (GCT)	BT No.	Weather	Cloud		Wind		Air Temp. (° F)		Sea State		Depth (fm)
							Form	Tenths	Dir. (deg.)	Force	Dry	Wet	State	Vis.	
91A	72 50	166 12	13 Aug	0530	267, 268	Cloudy	Sc	10	300	2	30.5	30.0	3	8	30.5
91B	72 57	166 27	13 Aug	0758	269, 270	Cloudy	Sc	10	270	3	32.0	31.5	2	8	30
92	72 38	166 32	13 Aug	1025	271, 272	Cloudy	Sc	10	270	3	31.0	29.5	3	7	29
93	72 18	166 36	13 Aug	1250	273, 274	Slight snow in flakes	Sc	10	290	5	33.0	32.0	4	7	28
94	71 58	166 44	13 Aug	1515	275, 276	Snow	Sc	10	330	5	32.1	31.0	4	7	27
95	71 40	166 52	13 Aug	1724	277, 278	Slight snow in flakes	Sc	10	300	4	35.0	34.0	4	7	26.5
96	71 20	166 55	13 Aug	1940	279, 280	Cloudy	Sc	10	300	3	36.0	35.0	3	8	26
97	70 58	167 00	13 Aug	2213	281, 282	Cloudy	Sc	10	260	2	38.0	36.5	2	8	26
98	70 38	167 08	14 Aug	0035	283, 284	Partly cloudy	Sc	8	230	2	37.5	34.6	2	8	29.5
99	70 20	167 12	14 Aug	0254	285, 286	Cloudy	Sc	8	200	2	36.6	34.6	2	8	28
100	70 03	167 30	14 Aug	0505	287, 288	Cloudy	As-Sc	6	130	2	39.0	37.7	2	8	27
101	69 44	167 47	14 Aug	0730	289, 290	Overcast	Ac-Sc	8	130	2	41.7	40.0	2	7	27
102	69 26	168 04	14 Aug	0946	291, 292	Cloudy	Ac-Sc	8	140	3	43.5	42.0	2	7	29
103	69 08	168 20	14 Aug	1159	293, 294	Slight rain	Sc	10	150	4	41.9	41.5	2	7	29
104	68 52	168 28	14 Aug	1415	295, 296	Slight rain	Sc	10	160	5	41.9	41.5	2	6	29.5
105	68 32	168 28	14 Aug	1625	297, 298	Cloudy	Sc	10	180	5	40.5	40.5	3	7	30
106	68 16	168 29	14 Aug	1852	299, 300	Cloudy	Sc	10	190	4	40.8	40.6	3	7	30
107	68 05	168 33	14 Aug	2125	301, 302	Cloudy	Sc	10	190	3	40.5	40.0	1	8	33
108	67 45	168 27	15 Aug	0010	303, 304	Cloudy	Ac-As	7	220	2	42.0	41.5	2	7	28
109	67 29	168 22	15 Aug	0231	305, 306	Cloudy	As	10	240	3	41.8	41.4	2	8	26
110	67 13	168 18	15 Aug	0438	307, 308	Cloudy	As	10	180	3	41.8	40.2	2	8	21
111	66 56	168 11	15 Aug	0653	309, 310	Fog	St	10	180	4	45.2	43.0	2	6	18
112	66 37	168 04	15 Aug	1010	311, 312	Slight drizzle	St	10	180	4	45.3	42.8	3	—	15
113	66 16	167 58	15 Aug	1312	313, 314	Cloudy	St	10	170	3	49.6	45.2	2	8	15
114	65 24.2	167 32	15 Aug	2355	318, 319	Cloudy	St	10	160	2	48.5	48.3	3	7	8.5
115	65 17.2	167 02.5	16 Aug	0214	320, 321	Cloudy	St	10	170	4	49.9	49.7	3	7	7
116	65 17	167 08	18 Aug	1340	322, 323	Cloudy	As-Sc	10	060	1	49.6	47.5	2	7	8
117	65 26	167 44	18 Aug	1512	324, 325	Rain	Sc	10	350	1	48.0	46.5	2	7	11.5
118	65 37.7	168 09.5	18 Aug	2125	326, 327	Cloudy	St	10	190	2	50.0	49.5	2	7	6
119	65 37.7	168 09.5	18 Aug	2222	328	Drizzle	St	10	—	—	—	—	2	7	7
120	65 37.7	168 09.5	19 Aug	0050	329	Slight rain	St	10	—	—	—	—	2	4	7
121	65 37.7	168 09.5	19 Aug	0640	330	Slight rain	St	10	—	—	—	—	4	4	7
122	65 36.1	168 32	19 Aug	0854	332	Cloudy	Sc	10	140	3	—	—	3	—	30
123	65 36.1	168 32	19 Aug	1310	333, 334	Cloudy	Sc	10	150	5	—	—	3	—	30
124	65 36.1	168 32	19 Aug	1645	335	Slight rain	Sc	10	150	4	—	—	3	6	30
125	65 36.1	168 32	19 Aug	2131	337	Slight rain	Sc	10	140	3	—	—	3	6	30
126	65 36.6	168 06.5	20 Aug	0250	338, 339	Cloudy	As-Sc	10	200	3	—	—	2	6	6
127	65 37	168 19	20 Aug	0607	343	Rain	As-Sc	10	—	1	—	—	0	7	27
128	65 55	168 21	20 Aug	0805	345	Slight drizzle	As-Sc	10	020	1	—	—	1	—	30
129	66 17	168 21	20 Aug	1021	346, 347	Cloudy	As	10	—	—	—	—	1	—	31
130	66 20	167 58	20 Aug	1127	348, 349	Cloudy	As-Sc	10	—	—	—	—	1	6	19
131	66 25	167 40	20 Aug	1235	350, 351	Cloudy	As-Sc	10	100	2	—	—	1	7	13
132	66 24	167 08	20 Aug	1412	352, 353	Rain	As-Sc	10	100	2	—	—	1	7	16.5
133	66 24	166 31	20 Aug	1522	354, 355	Cloudy	As-Sc	10	—	2	—	—	1	7	15
134	66 40	167 02	20 Aug	1735	356, 357	Cloudy	As-Sc	10	—	1	—	—	1	7	20
135	66 55	167 34	20 Aug	2003	359	Cloudy	St-Ac	10	330	1	—	—	1	7	21
136	67 10	168 04	20 Aug	2221	360, 361	Cloudy	As-Sc	10	330	1	—	—	1	7	25
137	67 24	168 40	21 Aug	0055	362, 363	Cloudy	As	10	—	—	—	—	1	7	28
138	67 24	168 40	21 Aug	0345	379, 380	Cloudy	As-Cc	10	—	2	—	—	1	7	27
139	67 39	168 05	21 Aug	0743	381, 382	Drizzle	St	10	040	2	—	—	2	6	30
140	67 58	167 27.5	21 Aug	1046	383, 384	Slight drizzle	St	10	040	2	—	—	2	6	29
142	68 16	166 50	21 Aug	2047	387, 388	Slight drizzle	St	10	060	2	—	—	1	3	17.5
143	68 20	166 48	22 Aug	0732	417	Slight drizzle	St	10	080	1	—	—	1	6	8
144	68 27	166 44	22 Aug	0812	419	Slight drizzle	St	10	080	1	—	—	1	6	13
145	68 33	166 41	22 Aug	0844	420, 421	Slight drizzle	St	10	080	1	—	—	1	6	15
146	68 37	166 39	22 Aug	0911	422, 423	Slight drizzle	St	10	080	1	—	—	1	6	15
147	68 54	166 17	22 Aug	1208	424, 425	Slight rain	St	10	090	1	—	—	1	6	17
148	69 13	165 55	22 Aug	1439	426, 427	Cloudy	As-Sc	10	090	3	—	—	2	6	18
149	69 35	165 33	22 Aug	1735	428, 429	Cloudy	As-Sc	10	090	2	—	—	2	6	20.5
150	69 35	165 33	22 Aug	2017	430, 431	Cloudy	As-Sc	10	090	2	—	—	—	7	20.5
151	69 35	164 32	23 Aug	0019	453, 454	Cloudy	As-Sc	10	090	2	—	—	2	8	15
152	69 35	163 34	23 Aug	0252	455, 456	Partly cloudy	Ci-Cc-Ac-Sc-As-St	10	—	0	—	—	1	7	9.5
153	69 35	163 34	23 Aug	0615	478	Slight drizzle	Sc-As	10	—	0	—	—	0	7	9.5
154	69 25	164 14	23 Aug	0859	479, 480	Slight drizzle	St-Sc	10	—	0	—	—	0	8	12.5
155	69 14	164 54	23 Aug	1121	481, 482	Cloudy	As-Sc	10	—	1	—	—	1	8	15
156	69 02	164 55	23 Aug	1330	483, 484	Cloudy	As-Sc	10	—	1	—	—	1	8	10
157	68 50	166 13	23 Aug	1805	485, 486	Cloudy	Cc-As-Sc	10	—	3	—	—	1	8	13



TABLE 1. (Continued)

Sta. No.	North Lat. (deg., min.)	West Long. (deg., min.)	Date (1949)	Time (GCT)	BT No.	Weather	Cloud		Wind		Air Temp. (° F)		Sea State	Depth (fm)
							Form	Tenths	Dir. (deg.)	Force	Dry	Wet		
158	69 17	166 12	23 Aug	2354	487, 488	Slight rain	St-Sc	10	—	3	—	—	2	6 20
159	69 38	166 10	24 Aug	0215	489, 490	Cloudy	Sc	10	120	4	—	—	2	7 25
160	69 59	166 09	24 Aug	0434	491, 492	Cloudy	Sc	10	090	3	—	—	2	8 25
161	70 20	166 06	24 Aug	0659	493, 494	Cloudy	Sc	10	090	3	—	—	2	8 26
162	70 40	166 06	24 Aug	0945	495, 496	Slight drizzle	Sc	10	100	3	—	—	2	7 21
163	71 00	165 52	24 Aug	1246	497, 498	Cloudy	Sc	10	100	4	—	—	2	7 24
164	71 08	166 48	24 Aug	1517	499, 500	Cloudy	Sc	10	080	4	—	—	3	7 26
165	71 16	167 40	24 Aug	1747	501, 502	Cloudy	Sc	10	100	4	—	—	3	7 27
166	71 03	168 26	24 Aug	2053	503, 504	Slight drizzle	Sc	10	—	3	—	—	3	7 26
167	70 44	168 26	24 Aug	2322	505, 506	Drizzle & fog	St	10	—	3	—	—	3	5 24
168	70 44	168 26	25 Aug	0112	524	Drizzle & fog	St	10	090	3	—	—	2	8 24
169	70 24	168 25	25 Aug	0348	525, 526	Cloudy	St	10	130	1	—	—	1	8 22
170	70 04	168 24	25 Aug	0605	527, 528	Cloudy	St	10	090	1	—	—	1	8 24.5
171	69 43	168 24	25 Aug	0814	529, 530	Slight drizzle	St	10	090	2	—	—	2	8 23
172	69 24	167 20	25 Aug	1041	531, 532	Slight drizzle	St	10	090	2	—	—	2	7 26.5
173	69 06	168 10	25 Aug	1325	533, 534, 535, 550	Drizzle & fog	St	10	050	2	—	—	2	3 27
174	69 06	168 10	25 Aug	1549	551	Cloudy	St	10	150	2	—	—	2	5 27
175	68 50	167 38	25 Aug	1824	552, 553	Cloudy	St	10	170	2	—	—	2	7 27
176	68 34	167 07	25 Aug	2051	554, 555	Slight drizzle	Sc	10	170	4	—	—	2	7 20.5
177	68 15	167 14	25 Aug	2353	556, 557	Partly cloudy	Ac	4	130	4	—	—	2	8 26
							CI-As	2						
178	67 59	166 48	26 Aug	0230	558, 559	Partly cloudy	CI-Sc	4	120	3	—	—	2	8 31
179	67 42	166 24	26 Aug	0448	560, 561	Partly cloudy	CI-As-Sc	5	110	3	—	—	3	8 25.5
180	67 26	166 00	26 Aug	0728	562, 563	Cloudy	As-Sc	10	110	3	—	—	3	8 21.5
181	67 10	166 36	26 Aug	0957	564, 565	Cloudy	As-Sc	10	110	3	—	—	3	7 22.5
182	66 54	167 10	26 Aug	1237	566, 567	Cloudy	As-Sc	10	130	3	—	—	2	7 20
183	66 38	167 42	26 Aug	1512	568, 569	Moderate rain	Sc	10	140	4	—	—	2	7 15
184	66 19	168 08	26 Aug	1758	571	Cloudy	Sc	10	110	2	—	—	2	7 31
185	66 00	168 26	26 Aug	2008	573	Cloudy	Sc	10	120	2	—	—	2	7 28
186	65 37.5	168 26	26 Aug	2351	575	Slight rain	Sc	10	120	2	—	—	2	7 29
187	65 37.5	168 26	27 Aug	0245	595	—	—	—	—	—	—	—	—	29
188	65 18	168 26	27 Aug	0627	596, 597	Cloudy	Sc	10	110	1	—	—	1	7 27
189	64 58	168 25	27 Aug	0852	598, 599	Partly cloudy	As	8	—	3	—	—	2	7 28
190	64 38	168 25	27 Aug	1127	600, 601	Fog	As-Sc	10	—	2	—	—	2	5 23.5
191	64 18	168 25	27 Aug	1350	602, 603	Slight rain	Sc	10	—	2	—	—	2	6 21
192	63 58	168 25	27 Aug	1627	604, 605	Fog in patches	Sc	10	—	1	—	—	2	4 19
193	63 37	168 26	27 Aug	1843	606, 607	Fog in patches	St	10	—	1	—	—	2	3 15.5
194	63 17	168 26	27 Aug	2054	608, 609	Cloudy	As-St	10	220	3	—	—	2	8 20.5
195	62 56	168 24	27 Aug	2327	610, 611	Cloudy	As-Sc	10	220	4	—	—	2	8 22
196	62 36	168 22	28 Aug	0152	612, 613	Cloudy	As-Ac-Sc	10	210	4	—	—	3	8 20
197	62 16	168 20	28 Aug	0435	614, 615	Partly cloudy	Ac	1	180	3	—	—	2	8 17.5
198	61 56	168 18	28 Aug	0657	616, 617	Overcast	Sc	10	180	3	—	—	2	8 15.5
199	61 36	168 16	28 Aug	0921	618, 619	Partly cloudy	Sc	6	180	2	—	—	2	7 16
200	61 17	168 14	28 Aug	1146	620, 621	Overcast	Sc	10	—	2	—	—	2	7 16
201	60 56	168 12	28 Aug	1410	622, 623	Cloudy	Sc	10	—	2	—	—	2	7 16
202	60 36	168 11	28 Aug	1635	624, 625	Cloudy	Sc	10	170	2	—	—	2	7 15
203	60 12	168 10	28 Aug	1858	626, 627	Cloudy	Sc	10	175	2	—	—	2	5 15
204	59 55	168 10	28 Aug	2113	628, 629	Partly cloudy	Sc-Cu-Ac-Cs	7	180	2	—	—	2	8 18
							Ac-Cu	9	180	1	—	—	2	8 21
205	59 38	168 12	28 Aug	2343	630, 631	Cloudy	Ac	10	180	2	—	—	2	8 22
206	59 14	168 14	29 Aug	0238	632, 633	Cloudy	Ac	10	045	3	—	—	2	8 27
207	58 55	168 15	29 Aug	0456	634, 636	Cloudy	Sc	10	180	2	—	—	2	8 32.5
208	58 34	168 18	29 Aug	0732	637, 638	Cloudy	Sc	10	180	2	—	—	2	6 36.5
209	58 15	168 20	29 Aug	0953	639, 640	Slight rain	Sc	10	—	3	—	—	2	7 39
210	57 58	168 28	29 Aug	1235	641, 642	Snow	Sc	10	090	3	—	—	2	7 39
211	57 38	168 38	29 Aug	1509	643, 644	Cloudy	Ac	9	130	3	—	—	3	7 44
212	57 19	168 48	29 Aug	1758	645, 646, 647	Partly cloudy	Sc	10	140	3	—	—	3	7 51
213	57 00	168 57	29 Aug	2030	648, 649	Slight drizzle	Sc-Cu-As-CI	8	150	2	—	—	3	8 59
214	56 32	168 36	29 Aug	2306	650, 651	Partly cloudy	Ac-Sc	8	160	2	—	—	3	8 82
215	56 17	168 12	30 Aug	0152	652, 653	Cloudy	Ac-Sc	9	180	2	—	—	3	8 62
216	56 03	167 46	30 Aug	0424	654, 655	Cloudy	Ac-Cb	4	—	1	—	—	2	8 77
217	55 48	167 20	30 Aug	0641	656, 657	Partly cloudy	Ac	4	—	1	—	—	2	8 72.5
218	55 33	166 54	30 Aug	0845	658, 659	Partly cloudy	—	10	240	2	—	—	2	7 76
219	55 19	166 30	30 Aug	1130	660, 661	Overcast	—	10	—	2	—	—	2	7 75
220	55 04	166 06	30 Aug	1356	662, 663	Cloudy	Ac-Sc	9	—	1	—	—	2	7 81
221	54 50	165 42	30 Aug	1623	664, 665	Cloudy	Ac	1	—	0	—	—	1	4 65
222	54 36	165 18	30 Aug	1841	666, 667	Partly cloudy								

TABLE 2. Oceanographic data for stations occupied by HMCS Cedarwood, summer 1949.

Observed Values			Interpolated Values			
Depth (ft)	Temp. (°F)	Sal. (‰)	Depth (ft)	Temp. (°F)	Sal. (‰)	$\sigma_t$
STATION 31						
0	44.0	31.24	0	44.0	31.24	24.52
45	43.0	31.24	10	44.0	31.24	24.52
108	30.5	31.76	20	44.0	31.24	24.52
			40	43.0	31.24	24.59
			60	42.4	31.29	24.67
			80	30.9	31.38	25.22
			100	30.5	31.58	25.40
STATION 32						
0	43.81	31.58	0	44.1	31.58	24.78
15	44.1	31.64	10	44.1	31.61	24.81
45	42.4	31.92	20	44.1	31.70	24.88
84	40.5	32.16	40	42.4	31.89	25.15
96	37.0	32.39	60	41.8	32.02	25.29
123	29.6	32.45	80	40.7	32.11	25.42
			100	30.0	32.40	26.07
STATION 33						
0	44.9	31.56	0	45.2	31.56	24.69
30	45.2	31.64	10	45.2	31.60	24.72
60	41.9	31.69	20	45.2	31.62	24.74
90	35.7	32.10	40	45.2	31.66	24.78
117	30.3	32.18	60	41.9	31.69	25.02
135	29.7	32.43	80	39.3	31.88	25.32
			100	32.1	32.12	25.80
STATION 34						
0	44.0	31.53	0	44.0	31.53	24.76
15	44.2	31.53	10	44.1	31.53	24.75
54	42.2	31.67	20	44.2	31.54	24.74
90	29.9	32.12	40	43.8	31.60	24.82
132	29.4	32.36	60	40.4	31.72	25.14
192	29.0	32.54	80	32.5	31.97	25.67
			100	29.7	32.20	25.91
			150	29.2	32.41	26.08
STATION 35						
0	43.3	31.46	0	43.9	31.46	24.71
30	43.9	31.47	10	43.9	31.46	24.71
60	34.4	32.01	20	43.9	31.47	24.72
90	29.4	32.20	40	43.8	31.59	24.82
120	29.0	32.34	60	34.4	32.01	25.64
180	29.0	32.36	80	29.6	32.16	25.88
			100	29.2	32.26	25.96
			150	29.0	32.35	26.04
STATION 36						
0	46.5	31.24	0	46.5	31.24	24.49
15	46.0	31.20	5	46.3	31.23	24.34
30	40.6	31.29	10	46.2	31.21	24.33
51	36.5	32.43	15	46.0	31.20	24.33
75	36.0	32.47	20	44.2	31.23	24.47
			30	40.6	31.29	24.77
			40	39.6	31.55	25.07
			60	37.5	32.08	25.60
			75	36.0	32.47	25.98
STATION 37						
0	40.1	32.10	0	40.4	32.10	25.43
6	40.4	32.10	10	40.4	32.11	25.44
12	40.3	32.12	20	40.3	32.12	25.46
24	39.9	32.12	40	37.2	32.49	25.91
51	37.1	32.77	60	37.1	32.81	26.17
126	36.8	32.92	80	37.0	32.83	26.20
			100	36.9	32.87	26.23
STATION 38						
0	39.4	32.18	0	39.7	32.18	25.54
15	39.7	32.20	10	39.7	32.19	25.54
60	39.6	32.21	20	39.7	32.20	25.55
120	39.3	32.21	40	39.7	32.21	25.56
156	38.6	32.23	60	39.6	32.21	25.56
171	38.1	32.20	80	39.4	32.21	25.57
			100	39.4	32.21	25.57
			150	38.7	32.23	25.63
STATION 39						
0	38.7	32.41	0	40.5	32.41	25.67
30	40.3	32.41	10	40.4	32.41	25.68
69	39.6	32.54	20	40.3	32.41	25.68
99	37.3	32.39	40	40.2	32.44	25.72
129	36.3	32.39	60	39.9	32.53	25.80
159	36.4	32.39	80	38.8	32.50	25.84
			100	37.3	32.39	25.82
			150	36.3	32.39	25.87
STATION 40						
0	40.1	32.48	0	40.1	32.48	25.75
21	40.4	32.63	10	40.3	32.59	25.83
36	40.4	32.57	20	40.4	32.63	25.85
54	40.3	32.63	40	40.4	32.57	25.81
81	39.7	32.63	60	40.0	32.63	25.88
121	38.5	32.57	80	39.7	32.63	25.89
			100	39.1	32.61	25.91
STATION 41						
0	39.8	31.94	0	39.8	31.94	25.34
15	39.2	32.00	10	39.4	31.98	25.39
36	32.1	32.30	20	35.9	32.05	25.62
57	31.8	32.45	40	32.0	32.37	26.00
78	31.8	32.25	60	31.8	32.45	26.07
STATION 42						
0	43.4	31.65	0	45.3	31.65	24.76
21	45.3	31.69	10	45.3	31.67	24.78
45	40.9	31.92	20	45.3	31.69	24.79
69	39.5	31.85	40	41.8	31.88	25.18
90	38.8	32.12	60	40.0	31.90	25.31
			80	39.0	31.91	25.36
STATION 43						
0	46.0	31.69	0	46.0	31.69	24.73
15	46.0	31.69	10	46.0	31.69	24.73
30	46.0	31.69	20	46.0	31.69	24.73
45	44.8	31.69	40	45.8	31.69	24.75
90	38.8	31.78	60	38.9	31.70	25.20
			80	38.8	31.73	25.23
STATION 44						
0	51.5	24.88	0	51.5	24.98	18.91
12	49.2	25.99	10	49.8	25.77	19.81
27	45.2	27.68	20	45.5	26.89	21.02
42	45.3	28.12	40	45.3	28.10	22.07
63	45.4	28.30	60	45.4	28.28	22.22
STATION 45						
0	53.2	21.00	0	53.2	21.00	15.831
9	53.2	21.15	10	53.2	21.19	15.977
27	52.3	22.01	20	52.7	21.61	16.344
39	50.0	23.21	40	50.0	23.18	17.508
54	48.1	23.35	60	48.1		
70	48.1	—				

TABLE 2. (Continued)

Observed Values			Interpolated Values			
Depth (ft)	Temp. (°F)	Sal. (‰)	Depth (ft)	Temp. (°F)	Sal. (‰)	$\sigma_t$
STATION 46						
0	47.9	25.26	0	47.9	25.26	19.53
6	47.3	26.09	10	45.1	26.72	20.91
15	44.2	27.77	20	44.7	28.89	22.63
21	45.0	28.96	40	42.8	29.60	23.32
36	42.8	29.51	60	42.7	29.66	23.38
78	42.7	29.69	80	42.6	29.70	23.41
90	42.6	—				
STATION 47						
0	50.3	25.08	0	50.3	25.08	19.79
10	46.0	28.30	10	46.0	28.30	22.08
19	48.5	29.43	20	48.4	29.52	22.84
37	42.5	30.01	40	42.2	30.09	23.74
55	41.8	30.19	60	41.9	30.20	23.84
76	41.7	30.21	80	41.7		
84	41.6 <sub>3</sub>	—				
STATION 48						
0	48.2	27.23	0	48.2	27.23	21.08
5	45.9	28.19	10	47.1	29.34	22.82
15	46.5	30.25	20	45.2	30.56	23.91
30	43.8	30.84	40	41.9	30.88	24.39
55	41.9	30.88	60	41.5	30.88	24.42
76	41.3	30.88	80	41.3		
84	41.3	—				
STATION 49						
0	45.6	31.38	0	45.6	31.38	24.52
12	45.5	31.60	10	45.6	31.59	24.68
20	45.5	31.56	20	45.5	31.56	24.68
32	45.0	31.56	40	42.0	31.56	24.91
60	41.7	31.56	60	41.8	31.56	24.92
90	41.3	31.64	80	41.5	31.60	24.98
107	41.3		100	41.3		
STATION 50						
0	44.9	31.56	0	44.9	31.56	24.72
21	44.9	31.60	10	44.9	31.60	24.75
39	42.9	31.71	20	44.9	31.60	24.75
66	39.2	31.98	40	42.9	31.72	24.98
99	37.8	32.00	60	39.8	31.91	25.32
125	37.4	32.03	80	38.1	32.00	25.48
151	36.9	—	100	37.8	32.00	25.50
			150	37.0		
STATION 51						
0	47.3	30.75	0	47.3	30.75	23.90
18	47.3	30.79	10	47.5	30.79	23.92
30	46.8	30.88	20	47.5	30.80	23.92
42	37.1	31.96	40	37.2	31.88	25.43
75	35.2	32.10	60	35.4	32.09	25.68
138	33.9	32.25	80	35.1	32.11	25.70
150	33.9	—	100	34.1	32.15	25.77
			150	33.9	—	—
STATION 52						
0	46.9	31.44	0	46.9	31.44	24.48
9	46.9	32.14	10	46.9	32.20	25.08
21	40.4	32.38	20	41.0	32.38	25.63
48	33.6	32.38	40	35.0	32.38	25.92
90	34.0	32.50	60	33.5	32.39	25.98
150	34.9	32.52	80	33.8	32.50	26.06
174	34.9		100	34.1	32.50	26.05
			150	34.9	32.52	26.04

Observed Values			Interpolated Values			
Depth (ft)	Temp. (°F)	Sal. (‰)	Depth (ft)	Temp. (°F)	Sal. (‰)	$\sigma_t$
STATION 53						
0	45.6	31.49	0	45.6	31.49	24.61
21	45.4	31.51	10	45.6	31.50	24.62
30	45.1	31.51	20	45.5	31.51	24.64
48	37.7	32.01	40	39.9	31.70	25.15
97	37.4	32.03	60	37.5	32.01	25.52
177	36.9	32.03	80	37.5	32.02	25.53
192	36.8	—	100	37.4	32.03	25.54
			150	37.1	32.03	25.55
STATION 54						
0	49.5	26.58	0	49.5	26.58	20.46
12	49.2	26.60	10	49.3	26.58	20.48
27	44.8	29.33	20	47.9	27.88	21.61
45	44.1	30.34	40	44.4	30.14	23.64
66	43.5	30.86	60	43.7	30.76	24.17
90	43.5	31.00	80	43.5	30.98	24.36
100	43.6	—	100	43.6	—	—
STATION 55						
0	49.0	26.83	0	49.0	26.83	20.69
25	48.0	27.32	10	49.0	27.03	20.86
27	47.9	—	20	48.1	27.24	21.09
STATION 56						
0	48.9	26.89	0	48.9	26.89	20.76
26	48.2	27.20	10	48.9	27.00	20.84
			20	48.8	27.11	20.94
STATION 57						
0	48.6	26.94	0	48.6	26.94	20.82
12	48.4	27.09	10	48.4	26.99	20.87
24	47.9	27.50	20	48.1	27.33	21.16
27	47.7	—				
STATION 58						
0	48.4	26.83	0	48.4	26.83	20.75
24	47.6	27.50	10	48.5	27.11	20.96
27	47.3	—	20	47.0	27.39	21.23
STATION 59						
0	49.6	26.06	0	49.6	26.06	20.05
9	47.0	26.26	10	46.7	26.40	20.54
24	44.0	29.72	20	44.5	29.05	22.78
39	42.2	31.04	40	42.2	31.09	24.53
75	42.5	31.29	60	42.4	31.25	24.64
120	42.8	31.33	80	42.6	31.29	24.66
135	42.8	—	100	42.8	31.30	24.66
STATION 60						
0	45.2	31.36	0	45.2	31.36	24.54
12	45.2	31.51	10	45.2	31.50	24.65
24	44.6	31.65	20	45.0	31.61	24.75
54	40.9	31.83	40	41.0	31.80	25.16
102	39.2	32.00	60	40.6	31.90	25.27
150	38.4	32.03	80	39.9	31.96	25.36
170	38.1	—	100	39.3	32.01	25.43
			150	38.4	32.03	25.50
STATION 61						
0	46.7	31.15	0	46.7	31.15	24.26
21	46.6	31.20	10	46.7	31.17	24.28
33	45.0	31.36	20	46.6	31.20	24.30
57	37.5	32.12	40	41.3	31.55	24.95
105	36.9	32.14	60	37.5	32.12	25.61
150	36.6	32.12	80	37.0	32.13	25.64
165	36.6	—	100	36.9	32.14	25.65
			150	36.6	32.12	25.65



TABLE 2. (Continued)

Observed Values			Interpolated Values			
Depth (ft)	Temp. (°F)	Sal. (‰)	Depth (ft)	Temp. (°F)	Sal. (‰)	$\sigma_t$
STATION 62						
0	46.7	31.06	0	46.7	31.06	24.19
24	46.6	31.20	10	46.7	31.11	24.23
39	42.9	31.53	20	46.6	31.18	24.29
60	41.5	32.01	40	42.8	31.57	24.87
105	40.3	32.01	60	41.5	32.01	25.31
165	37.8	32.10	80	40.9	32.01	25.34
187	37.5	—	100	40.4	32.01	25.37
			150	38.9	32.01	25.45
STATION 63						
0	48.0	28.08	0	48.0	28.08	21.76
15	47.9	28.24	10	47.9	28.14	21.81
30	44.0	30.14	20	46.4	28.96	22.56
45	44.0	30.26	40	44.0	30.24	23.75
57	43.5	30.35	60	43.3	30.28	23.82
75	43.2	30.70				
STATION 64						
0	45.9	31.04	0	45.9	31.04	24.24
18	45.6	31.13	10	45.7	31.13	24.32
30	44.5	31.13	20	45.5	31.13	24.34
48	42.4	31.27	40	43.1	31.17	24.54
60	42.2	31.38	60	42.2	31.38	24.76
78	42.1	31.40	80	42.1		
90	42.1					
STATION 65						
0	44.9	31.71	0	44.9	31.71	24.84
9	44.7	31.80	10	44.7	31.81	24.93
24	43.2	31.98	20	44.4	31.92	25.03
39	40.5	32.18	40	40.5	32.20	25.51
54	41.0	32.34	60	40.4	32.39	25.67
87	40.2	32.39	80	40.2	32.39	25.68
97	40.2					
STATION 66						
0	43.8	31.20	0	43.8	31.20	24.51
6	43.0	31.29	10	43.0	31.30	24.64
18	43.0	31.33	20	43.0	31.35	24.68
48	43.0	31.36	40	43.0	31.36	24.69
63	42.9	31.47	60	43.0	31.41	24.72
72	42.8	—				
STATION 67						
0	49.1	28.71	0	49.1	28.71	22.15
12	49.0	28.84	10	48.9	28.81	22.25
21	48.9	28.98	20	48.9	28.97	22.35
39	46.2	29.69	40	46.2	29.71	23.17
51	44.8	30.28	60	43.3	30.65	24.11
66	43.0	30.84	80	43.0		
82	43.0					
STATION 68						
0	43.1	31.96	0	43.1	31.96	25.15
9	43.1	31.96	10	43.1	31.96	25.15
21	42.9	32.05	20	42.9	32.03	25.23
42	39.4	32.36	40	39.5	32.32	25.67
75	39.1	32.41	60	39.2	32.40	25.74
108	39.1	32.41	80	39.1	32.41	25.76
130	39.1	—	100	39.1	32.41	25.76

Observed Values			Interpolated Values			
Depth (ft)	Temp. (°F)	Sal. (‰)	Depth (ft)	Temp. (°F)	Sal. (‰)	$\sigma_t$
STATION 69						
0	43.0	29.81	0	43.0	29.81	23.49
15	43.0	29.87	10	43.0	29.85	23.51
24	42.9	30.12	20	42.8	29.92	23.59
36	39.6	32.58 <sup>28</sup>	40	39.0	32.50	25.84
120	38.9	32.59	60	39.1	32.51	25.84
137	38.8	—	80	38.9	32.52	25.85
			100	38.9	32.54	25.87
STATION 70						
0	40.5	28.87	0	40.5	28.87	22.88
9	40.4	28.96	10	40.4	29.00	22.99
27	39.7	32.18	20	39.8	31.51	25.01
60	38.2	32.75	40	38.8	32.61	25.93
99	38.1	32.75	60	38.1	32.75	26.08
138	38.1	32.83	80	38.2	32.75	26.07
157	38.0	—	100	38.1	32.75	26.08
			150	38.0		
STATION 71						
0	41.4	28.44	0	41.4	28.44	22.49
9	41.2	28.66	10	41.2	29.05	22.99
15	37.6	32.03	20	36.9	32.51	26.06
39	36.1	32.86	40	36.0	32.86	26.26
99	35.6	32.88	60	35.9	32.86	26.27
150	34.9	32.88	80	35.7	32.87	26.28
168	34.8		100	35.6	32.88	26.30
			150	34.9	32.88	26.32
STATION 72						
0	40.7	28.59	0	40.7	28.59	22.65
15	40.4	28.59	10	40.5	28.59	22.66
36	37.4	28.66	20	40.4	28.59	22.67
75	36.9	32.81	40	37.2	29.30	23.38
150	36.9	32.81	60	37.0	32.80	26.17
			80	36.9	32.81	26.18
			100	36.9	32.81	26.18
			150	36.9	32.81	26.18
STATION 73						
0	41.3	31.27	0	41.3	31.27	24.73
15	41.3	31.27	10	41.3	31.27	24.73
36	41.0	31.27	20	41.2	31.27	24.74
60	38.7	32.30	40	40.0	31.27	24.80
120	37.8	32.72	60	38.7	32.30	25.69
142	37.8	—	80	38.5	32.41	25.78
			100	37.9	32.59	25.98
STATION 74						
0	45.7	29.27	0	45.7	29.27	22.86
18	45.7	29.27	10	45.7	29.27	22.86
30	44.9	29.34	20	45.6	29.27	22.87
39	44.2	29.41	40	44.1		—
44	44.1	—				
STATION 75						
0	45.9	29.35	0	45.9	29.35	22.91
18	45.8	29.35	10	45.8	29.35	22.92
30	45.7	29.37	20	45.8	29.35	22.92
39	45.1	29.51	40	45.1	—	—
42	45.0	—				
45	44.3	—				

TABLE 2. (Continued)

Observed Values			Interpolated Values			
Depth (ft)	Temp. (°F)	Sal. (‰)	Depth (ft)	Temp. (°F)	Sal. (‰)	$\sigma_t$
STATION 76						
0	45.5	29.37	0	45.5	29.37	22.95
18	45.4	29.39	10	45.5	29.37	22.95
30	45.2	29.49	20	45.4	29.40	22.99
39	45.0	29.51	40	45.0	—	—
46	44.9	—				
STATION 77						
0	46.1	29.44	0	46.1	29.44	22.97
18	45.9	29.46	10	46.0	29.44	22.98
30	45.9	29.50	20	45.9	29.47	23.01
39	45.2	29.50	40	45.1	—	—
45	45.0	—				
STATION 78						
0	46.0	29.29	0	46.0	29.29	22.85
18	45.9	29.36	10	45.9	29.32	22.89
30	45.7	29.40	20	45.9	29.38	22.93
39	45.0	29.56	40	45.0	—	—
49	44.9	—				
STATION 79						
0	44.1	30.35	0	44.1	30.35	23.82
42	44.0	30.37	10	44.1	30.35	23.82
60	43.1	30.66	20	44.1	30.35	23.82
90	42.2	30.73	40	44.0	30.37	23.85
106	42.2	—	60	43.1	30.66	24.13
			80	42.2	30.71	24.23
			100	42.2	—	—
STATION 80						
0	45.2	29.99	0	45.2	29.99	23.46
24	45.1	30.07	10	45.2	30.01	23.48
39	41.8	31.04	20	45.0	30.03	23.51
90	40.9	31.36	40	41.8	31.09	24.55
117	39.0	31.38	60	41.4	31.29	24.74
130	38.5	—	80	41.2	31.34	24.79
			100	40.6	31.38	24.85
STATION 81						
0	43.0	31.06	0	43.0	31.06	24.45
12	43.0	31.06	10	43.0	31.06	24.45
48	41.1	31.51	20	43.0	31.15	24.52
72	40.7	31.71	40	42.2	31.42	24.79
123	39.3	31.87	60	41.1	31.52	24.93
145	39.2	—	80	40.3	31.75	25.16
			100	39.5	31.81	25.25
STATION 82						
0	41.1	31.38	0	41.1	31.38	24.83
27	40.9	31.85	10	41.0	31.58	24.99
39	38.6	32.01	20	41.0	31.75	25.12
57	38.1	32.12	40	38.2	32.03	25.51
75	38.0	32.23	60	38.0	32.15	25.60
120	37.1	32.23	80	38.0	32.23	25.67
142	37.0	—	100	37.2	32.23	25.71
STATION 83						
0	40.7	31.96	0	40.7	31.96	25.31
18	40.7	32.00	10	40.7	32.00	25.34
57	40.4	32.10	20	40.7	32.00	25.34
66	38.8	32.12	40	40.6	32.05	25.38
99	36.3	32.21	60	40.3	32.11	25.45
135	35.9	32.21	80	38.6	32.15	25.57
149	35.9	—	100	36.6	32.21	25.72
STATION 84						
0	41.1	31.82	0	41.1	31.82	25.17
25	41.0	31.87	10	41.1	31.84	25.19
47	40.9	32.09	20	41.0	31.86	25.21
69	36.5	32.18	40	41.0	32.05	25.36
99	34.8	32.18	60	40.2	32.15	25.49
125	34.8	—	80	35.0	32.18	25.76
			100	34.9	32.18	25.77
STATION 85						
0	41.3	31.83	0	41.3	31.83	25.17
24	41.2	31.85	10	41.3	31.83	25.17
51	40.0	32.03	20	41.2	31.84	25.18
75	35.2	32.03	40	40.3	31.98	25.35
141	35.1	32.16	60	39.0	32.03	25.46
153	35.2	—	80	35.2	32.05	25.65
			100	35.2	32.10	25.69
			150	35.2	—	—
STATION 86						
0	41.1	31.31	0	41.1	31.31	24.77
48	41.1	31.35	10	41.1	31.32	24.78
75	38.2	32.00	20	41.1	31.33	24.79
102	34.0	32.14	40	41.1	31.34	24.80
141	34.0	32.14	60	41.1	31.50	24.92
154	34.0	—	80	38.2	32.05	25.52
			100	34.0	32.14	25.76
			150	34.0	32.14	25.76
STATION 87A						
0	40.0	31.18	0	40.0	31.18	24.73
27	39.9	31.20	10	39.9	31.18	24.73
36	40.0	31.26	20	39.9	31.19	24.74
54	35.8	31.85	40	40.1	31.35	24.86
105	34.2	32.20	60	34.9	31.94	25.58
			80	34.6	32.10	25.71
			100	34.3	32.18	25.79
STATION 87B						
0	38.3	29.36	0	38.3	29.36	23.37
21	38.1	29.51	10	38.2	29.44	23.44
36	37.0	29.94	20	38.1	29.50	23.50
60	35.5	31.35	40	35.2	30.17	24.15
75	30.0	32.09	60	35.5	31.35	25.08
144	29.2	32.70	80	29.8	32.33	26.02
150	29.2	—	100	29.8	32.65	26.27
STATION 88						
0	38.0	29.97	0	38.0	29.97	23.87
30	38.0	29.99	10	38.0	29.97	23.87
54	30.5	31.76	20	38.0	29.98	23.89
75	30.0	32.36	40	37.9	30.46	24.27
141	29.8	32.70	60	30.0	32.04	25.78
150	29.5	—	80	30.0	32.40	26.07
			100	30.1	32.49	26.14
STATION 89						
0	36.1	30.10	0	36.1	30.10	24.05
30	36.0	30.10	10	36.0	30.10	24.06
54	30.0	31.91	20	36.0	30.10	24.06
99	29.1	32.36	40	34.5	30.69	24.58
150	29.1	32.86	60	29.9	32.00	25.75
			80	29.3	32.20	25.91
			100	29.1	32.37	26.06
			150	29.1	32.86	26.45

TABLE 2. (Continued)

Observed Values			Interpolated Values			
Depth (ft)	Temp. (°F)	Sal. (‰)	Depth (ft)	Temp. (°F)	Sal. (‰)	$\sigma_t$
STATION 90						
0	30.2	28.84	0	30.2	28.84	23.18
24	30.3	28.95	10	30.2	28.90	23.22
51	29.9	30.86	20	30.2	28.95	23.27
60	29.3	31.69	40	29.9	29.75	23.92
99	29.1	32.74	60	29.3	31.69	25.50
150	29.1	33.10	80	29.1	32.43	26.10
			100	29.1	32.74	26.34
			150	29.1	33.10	26.65
STATION 91A						
0	30.7	29.23	0	30.7	29.23	23.49
15	30.7	29.29	10	30.7	29.27	23.52
30	30.5	29.99	20	30.7	29.48	23.70
45	29.9	30.44	40	29.9	30.27	24.35
75	29.4	32.25	60	29.6	31.50	25.35
138	29.1	33.08	80	29.4	32.40	26.06
			100	29.2	32.84	26.43
STATION 91B						
0	29.9	29.36	0	29.9	29.36	23.61
18	29.9	29.45	10	29.9	29.41	23.64
39	30.9	31.13	20	29.9	29.55	23.77
75	29.3	32.09	40	30.9	31.19	25.08
150	29.1	33.10	60	29.3	31.79	25.58
			80	29.3	32.17	25.89
			100	29.1	32.42	26.10
			150	29.1	33.10	26.64
STATION 92						
0	35.0	30.14	0	35.0	30.14	24.12
39	34.9	30.25	10	35.0	30.17	24.15
54	29.3	31.60	20	34.9	30.20	24.18
75	29.0	32.05	40	34.9	30.27	24.24
141	28.7	32.59	60	29.3	31.80	25.59
			80	28.9	32.10	25.84
			100	28.5	32.25	25.96
STATION 93						
0	36.7	30.05	0	36.7	30.05	23.99
27	36.8	30.08	10	36.8	30.06	24.00
45	30.8	30.21	20	36.8	30.07	24.01
75	29.9	32.79	40	35.0	30.16	24.14
147	29.1	32.79	60	30.1	31.82	25.60
			80	29.9	32.79	26.38
			100	29.8	32.79	26.38
STATION 94						
0	37.5	29.88	0	37.5	29.88	23.80
30	37.6	29.88	10	37.5	29.88	23.80
54	35.0	31.51	20	37.6	29.88	23.79
90	29.6	32.61	40	37.6	30.48	24.29
144	29.2	32.63	60	31.5	31.61	25.40
			80	29.7	32.50	26.15
			100	29.5	32.61	26.25
STATION 95						
0	40.1	31.24	0	40.1	31.24	24.77
48	40.0	31.24	10	40.1	31.24	24.77
75	34.8	32.21	20	40.1	31.24	24.77
105	34.0	32.23	40	40.0	31.24	24.78
138	33.9	32.25	60	39.9	31.66	25.10
			80	34.3	32.22	25.81
			100	34.0	32.23	25.83

Observed Values			Interpolated Values			
Depth (ft)	Temp. (°F)	Sal. (‰)	Depth (ft)	Temp. (°F)	Sal. (‰)	$\sigma_t$
STATION 96						
0	40.8	31.35	0	40.8	31.35	24.82
48	40.8	31.51	10	40.8	31.38	24.85
72	35.5	32.09	20	40.8	31.42	24.87
102	34.5	32.20	40	40.8	31.48	24.92
135	34.3	32.23	60	37.5	31.87	25.40
			80	35.2	32.11	25.69
			100	34.5	32.20	25.79
STATION 97						
0	40.8	31.51	0	40.8	31.51	24.94
30	41.0	31.56	10	40.8	31.53	24.96
45	41.2	31.78	20	40.8	31.55	24.98
72	34.6	32.25	40	41.3	31.69	25.06
120	34.5	32.25	60	35.9	32.06	25.63
			80	34.6	32.25	25.82
			100	34.5	32.25	25.83
STATION 98						
0	39.7	30.97	0	39.7	30.97	24.58
24	39.2	30.99	10	39.5	30.98	24.60
42	35.0	31.17	20	39.2	30.99	24.62
60	33.6	32.20	40	36.6	31.13	24.86
114	33.1	32.30	60	33.6	32.20	25.82
159	32.9	32.34	80	33.6	32.26	25.86
			100	33.6	32.29	25.90
			150	33.0	32.33	25.94
STATION 99						
0	39.2	30.64	0	39.2	30.64	24.34
36	38.9	30.84	10	38.9	30.68	24.40
51	33.9	32.05	20	38.9	30.75	24.44
90	34.2	32.38	40	38.9	31.00	24.65
150	34.1	32.38	60	34.1	32.11	25.73
			80	34.1	32.34	25.91
			100	34.2	32.38	25.94
			150	34.1	32.38	25.95
STATION 100						
0	40.9	31.56	0	40.9	31.56	24.98
30	40.9	31.74	10	40.9	31.60	25.01
69	41.0	32.34	20	40.9	31.68	25.08
96	34.9	32.52	40	40.9	31.83	25.19
147	34.8	32.57	60	41.0	32.06	25.36
			80	40.9	32.48	25.70
			100	34.9	32.53	26.04
STATION 101						
0	40.9	31.71	0	40.9	31.71	25.10
18	40.9	31.87	10	40.9	31.81	25.18
36	39.7	32.03	20	40.8	31.90	25.26
75	39.0	32.45	40	39.3	32.08	25.48
120	37.5	32.59	60	39.6	32.31	25.65
144	37.5	32.66	80	39.8	32.49	25.78
			100	39.0	32.51	25.84
STATION 102						
0	42.1	31.36	0	42.1	31.36	24.74
48	42.1	31.53	10	42.1	31.39	24.77
81	41.9	31.55	20	42.1	31.41	24.79
120	39.8	31.85	40	42.1	31.50	24.86
150	38.5	32.21	60	42.0	31.54	24.90
			80	41.9	31.55	24.91
			100	41.1	31.67	25.06
			150	38.5	32.21	25.62



TABLE 2. (Continued)

Observed Values			Interpolated Values			
Depth (ft)	Temp. (°F)	Sal. (‰/‰)	Depth (ft)	Temp. (°F)	Sal. (‰/‰)	$\sigma_t$
STATION 103						
0	42.2	31.31	0	42.2	31.31	24.70
33	42.2	31.35	10	42.2	31.32	24.71
66	41.0	31.51	20	42.2	31.33	24.72
99	38.3	32.30	40	42.2	31.39	24.76
150	38.2	32.43	60	41.2	31.48	24.90
			80	39.2	31.80	25.36
			100	38.3	32.30	25.71
			150	38.2	32.43	25.82
STATION 104						
0	40.5	30.66	0	40.5	30.66	24.28
18	40.5	30.70	10	40.6	30.68	24.30
39	39.8	31.73	20	40.5	30.74	24.35
72	38.8	32.36	40	39.6	31.73	25.19
144	38.7	32.52	60	38.8	32.25	25.63
			80	38.8	32.40	25.76
			100	38.7	32.46	25.82
STATION 105						
0	40.1	31.00	0	40.1	31.00	24.58
33	39.9	31.18	10	40.0	31.02	24.60
42	38.1	32.48	20	40.0	31.05	24.62
75	37.6	32.86	40	38.8	32.15	25.56
123	37.2	32.86	60	37.8	32.80	26.13
150	36.9	32.88	80	37.5	32.86	26.19
			100	37.3	32.86	26.21
			150	36.9	32.88	26.24
STATION 106						
0	40.3	30.91	0	40.3	30.91	24.50
33	40.2	31.02	10	40.2	30.93	24.51
60	37.6	32.88	20	40.2	30.96	24.54
90	37.5	32.92	40	40.2	31.30	24.82
150	37.4	32.94	60	37.6	32.88	26.21
			80	37.5	32.90	26.22
			100	37.5	32.91	26.23
			150	37.4	32.94	26.26
STATION 107						
0	38.7	30.05	0	38.7	30.05	23.90
18	38.3	30.39	10	38.8	30.13	23.96
36	37.7	32.75	20	38.0	30.51	24.30
75	37.1	32.94	40	37.7	32.87	26.19
150	36.7	33.06	60	37.2	32.90	26.24
			80	37.1	32.92	26.26
			100	36.8	32.95	26.29
			150	36.7	33.06	26.39
STATION 108						
0	39.9	31.33	0	39.9	31.33	24.85
30	39.6	31.40	10	39.8	31.35	24.88
42	38.3	32.01	20	39.6	31.38	24.91
54	36.7	32.50	40	39.0	31.88	25.34
99	36.5	32.84	60	36.7	32.60	26.02
150	36.0	33.01	80	36.5	32.79	26.19
			100	36.5	32.84	26.22
			150	36.0	33.01	26.38
STATION 109						
0	40.2	28.51	0	40.2	28.51	22.61
15	40.2	28.60	10	40.2	28.55	22.63
39	38.6	31.58	20	40.2	29.00	23.00
66	36.9	32.43	40	38.6	31.61	25.14
99	36.9	32.68	60	37.5	32.33	25.77
138	36.8	32.68	80	36.9	32.62	26.03
			100	36.9	32.68	26.08

Observed Values			Interpolated Values			
Depth (ft)	Temp. (°F)	Sal. (‰/‰)	Depth (ft)	Temp. (°F)	Sal. (‰/‰)	$\sigma_t$
STATION 110						
0	41.6	31.24	0	41.6	31.24	24.68
9	41.3	31.62	10	40.9	31.69	25.08
24	39.2	32.03	20	39.3	31.96	25.38
57	37.4	32.36	40	37.6	32.34	25.77
75	36.8	32.38	60	36.8	32.36	25.83
102	36.7	32.38	80	36.8	32.38	25.84
			100	36.7	32.38	25.85
STATION 111						
0	44.1	31.35	0	44.1	31.35	24.61
9	44.1	31.44	10	44.1	31.44	24.67
27	44.0	31.47	20	44.1	31.46	24.69
39	44.0	31.47	40	44.0	31.47	24.71
57	43.4	31.55	60	43.4	31.56	24.82
78	43.3	31.58				
STATION 112						
0	44.1	30.05	0	44.1	30.05	23.58
15	44.1	30.16	10	44.1	30.13	23.64
27	44.0	30.19	20	44.0	30.18	23.69
39	44.0	30.26	40	44.0	30.26	23.76
57	43.9	30.30				
STATION 113						
0	47.4	26.42	0	47.4	26.42	20.51
18	47.4	26.44	10	47.4	26.43	20.51
36	47.4	26.47	20	47.4	26.44	20.52
54	47.3	26.53	40	47.4	26.48	20.55
72	47.2	26.53	60	47.3	26.53	20.60
STATION 114						
0	49.9	23.13	0	49.9	23.13	17.76
9	49.9	23.13	10	49.9	23.13	17.76
18	49.7	23.15	20	49.2	23.16	17.83
30	47.5	23.21	40	46.8	24.50	19.06
42	46.8	26.83				
STATION 115						
0	51.0	21.31	0	51.0	21.31	16.26
15	51.0	21.31	10	51.0	21.31	16.26
24	50.9	21.31	20	50.9	21.31	16.27
30	50.9	21.67	40	50.0	22.94	17.60
42	49.8	23.35				
STATION 116						
0	50.4	20.72	0	50.4	20.72	15.84
9	50.4	20.75	10	50.4	20.75	15.87
18	50.4	20.77	20	50.4	20.84	15.94
30	50.0	21.98	40	49.8	22.36	17.17
45	49.8	22.48				
STATION 117						
0	50.7	21.37	0	50.7	21.37	16.33
6	50.5	21.53	10	50.0	22.00	16.87
18	49.2	22.90	20	49.2	22.99	17.70
36	49.1	23.59	40	49.0	23.70	18.27
60	48.9	24.24	60	48.9	24.24	18.70
STATION 118						
0	49.4	23.24	0	49.4	23.24	17.88
9	49.0	23.50	10	48.9	23.59	18.19
18	48.7	24.02	20	48.7	24.08	18.59
27	48.7	24.11				
39	48.2	24.58				
STATION 119						
0	50.5	22.30	0	50.5	22.30	17.06
9	50.3	22.38	10	50.2	22.39	17.16
18	49.9	22.65	20	49.9	22.76	17.47
30	49.4	23.50				

TABLE 2. (Continued)

Observed Values			Interpolated Values			
Depth (ft)	Temp. (°F)	Sal. (‰/‰)	Depth (ft)	Temp. (°F)	Sal. (‰/‰)	$\sigma_t$
STATION 120						
0	51.0	21.42	0	51.0	21.42	16.34
12	50.3	22.74	10	50.4	22.60	17.30
24	49.9	22.90	20	50.0	22.85	17.53
36	49.8	23.17				
STATION 121						
0	50.9	21.65	0	50.9	21.65	16.53
15	50.8	21.65	10	50.9	21.65	16.53
27	50.7	21.71	20	50.8	21.66	16.55
42	50.5	21.96	40	50.5	21.92	16.77
STATION 122						
0	43.0	31.69	0	43.0	31.69	24.97
48	42.4	31.76	10	43.0	31.70	24.98
63	41.8	31.80	20	42.9	31.72	25.00
72	40.3	31.82	40	42.4	31.75	25.04
90	39.7	31.87	60	41.9	31.80	25.10
108	37.1	32.07	80	40.0	31.86	25.26
150	36.9	32.07	100	37.7	31.99	25.49
			150	36.9	32.07	25.59
STATION 123						
0	42.8	31.74	0	42.8	31.74	24.99
15	42.6	31.74	10	42.6	31.74	25.01
30	42.3	31.74	20	42.5	31.74	25.02
48	40.7	31.78	40	41.3	31.76	25.09
90	40.5	31.92	60	40.6	31.79	25.18
129	39.9	—	80	40.6	31.90	25.26
156	38.8	31.94	100	40.3	31.92	25.29
			150	39.2	31.94	25.37
STATION 124						
0	42.2	31.64	0	42.2	31.64	24.96
15	42.3	31.85	10	42.3	31.80	25.08
30	42.3	31.89	20	42.3	31.87	25.14
48	41.4	31.89	40	41.8	31.89	25.18
90	41.1	31.92	60	41.0	31.90	25.24
129	40.2	31.92	80	41.0	31.92	25.25
156	40.1	32.03	100	40.8	31.92	25.27
			150	40.1	32.01	25.38
STATION 125						
0	43.2	31.82	0	43.2	31.82	25.04
54	43.1	31.92	10	43.2	31.84	25.05
75	41.9	31.94	20	43.2	31.86	25.06
90	38.9	31.96	40	43.2	31.90	25.10
150	36.8	32.09	60	43.1	31.92	25.12
			80	40.0	31.94	25.35
			100	38.3	31.99	25.46
			150	36.8	32.09	25.61
STATION 126						
0	51.5	20.79	0	51.5	20.79	15.82
15	51.5	20.82	10	51.5	20.81	15.83
30	51.4	20.82	20	51.4	20.82	15.86
STATION 127						
0	51.7	19.63	0	51.7	19.63	14.90
39	45.1	29.07	10	51.5	20.10	15.28
60	44.2	31.42	20	50.3	23.37	17.83
81	44.0	31.60	40	45.0	29.28	22.92
102	44.0	31.60	60	44.2	31.42	24.66
162	44.1	31.60	80	44.0	31.60	24.81
			100	44.0	31.60	24.81
			150	44.1	31.60	24.80

Observed Values			Interpolated Values			
Depth (ft)	Temp. (°F)	Sal. (‰/‰)	Depth (ft)	Temp. (°F)	Sal. (‰/‰)	$\sigma_t$
STATION 128						
0	45.4	28.57	0	45.4	28.57	22.30
18	44.9	28.95	10	45.1	28.67	22.43
42	42.9	31.40	20	44.9	29.10	22.79
66	41.3	31.74	40	42.9	31.31	24.66
120	41.1	31.78	60	41.6	31.70	25.05
150	41.1	31.89	80	41.2	31.75	25.11
			100	41.1	31.76	25.13
			150	41.1	31.89	25.22
STATION 129						
0	45.1	31.09	0	45.1	31.09	24.34
12	45.0	31.13	10	45.0	31.13	24.37
30	45.0	31.26	20	45.0	31.18	24.42
72	44.9	31.33	40	45.0	31.30	24.51
108	44.8	31.40	60	45.0	31.31	24.52
150	44.3	31.42	80	44.9	31.35	24.55
			100	44.8	31.39	24.59
			150	44.3	31.42	24.65
STATION 130						
0	46.6	27.45	0	46.6	27.45	21.372
9	46.0	27.47	10	45.9	27.48	21.446
36	45.0	29.38	20	45.1	27.96	22.349
72	44.5	30.17	40	44.9	29.51	23.11
102	44.2	30.52	60	44.6	30.00	23.50
			80	44.3	30.29	23.76
			100	44.2	30.49	23.92
STATION 131						
0	47.8	26.04	0	47.8	26.04	20.18
9	47.8	26.04	10	47.8	26.05	20.19
30	47.1	26.44	20	47.6	26.26	20.37
54	47.0	26.76	40	47.1	26.50	20.59
72	46.5	27.27	60	46.9	26.92	20.94
STATION 132						
0	47.5	26.85	0	47.5	26.85	20.84
18	47.3	27.03	10	47.5	26.91	20.88
36	45.8	28.14	20	47.3	27.11	21.05
57	45.0	29.51	40	45.7	28.52	22.28
90	44.9	29.72	60	45.0	29.59	23.16
			80	44.9	29.71	23.26
STATION 133						
0	48.8	26.17	0	48.8	26.17	20.21
21	48.8	26.35	10	48.8	26.27	20.28
33	48.7	26.47	20	48.7	26.35	20.35
48	47.2	27.00	40	48.2	26.68	20.65
60	46.6	27.27	60	46.6	27.27	21.23
75	46.4	27.85				
STATION 134						
0	44.6	30.43	0	44.6	30.43	23.84
9	44.5	30.59	10	44.5	30.59	23.98
36	43.6	30.90	20	44.1	30.72	24.11
54	43.2	31.40	40	43.3	30.97	24.36
66	41.8	31.60	60	42.4	31.54	24.87
99	41.5	31.74	80	41.7	31.69	25.03
STATION 135						
0	43.0	31.26	0	43.0	31.26	24.60
15	42.9	31.35	10	43.0	31.34	24.67
27	42.4	31.42	20	42.8	31.40	24.73
54	42.1	31.55	40	42.2	31.50	24.85
84	41.9	31.71	60	42.1	31.60	24.93
108	39.7	32.01	80	42.0	31.70	25.02
			100	40.8	31.91	25.26

TABLE 2. (Continued)

Observed Values			Interpolated Values			
Depth (ft)	Temp. (°F)	Sal. (‰)	Depth (ft)	Temp. (°F)	Sal. (‰)	$\sigma_t$
STATION 136						
0	40.7	31.33	0	40.7	31.33	24.81
15	40.6	31.38	10	40.7	31.37	24.84
27	39.0	31.78	20	40.5	31.50	24.96
42	37.0	32.10	40	37.1	32.06	25.58
75	36.8	32.41	60	36.8	32.30	25.78
120	36.6	32.41	80	36.8	32.41	25.87
			100	36.7	32.41	25.87
STATION 137						
0	38.7	26.13	0	38.7	26.13	20.80
12	38.2	26.36	10	38.2	26.30	20.96
24	37.2	30.16	20	38.0	26.77	21.34
54	36.8	32.81	40	37.0	31.93	25.52
99	36.2	32.86	60	36.8	32.83	26.23
150	36.1	32.94	80	36.5	32.85	26.23
			100	36.2	32.86	26.25
			150	36.1	32.94	26.32
STATION 138						
0	38.8	26.60	0	38.8	26.60	21.17
12	38.6	26.83	10	38.3	26.70	21.27
24	37.6	30.44	20	38.2	29.50	23.49
54	36.9	32.72	40	36.9	32.36	25.83
99	36.6	32.84	60	36.8	32.79	26.17
150	36.3	32.88	80	36.7	32.80	26.19
			100	36.6	32.84	26.23
			150	36.3	32.88	26.27
STATION 139						
0	39.9	26.53	0	39.9	26.53	21.06
15	39.9	26.56	10	39.9	26.55	21.08
30	37.3	31.38	20	38.8	27.19	21.59
75	36.4	32.99	40	36.6	32.36	25.84
150	36.2	32.99	60	36.5	32.95	26.31
169	36.2	32.99	80	36.4	32.99	26.35
			100	36.3	32.99	26.36
			150	36.2	32.99	26.36
STATION 140						
0	42.1	28.68	0	42.1	28.68	22.64
24	41.2	29.36	10	42.1	28.86	22.78
48	42.0	31.62	20	42.0	29.18	23.04
75	38.6	32.47	40	42.1	30.94	24.42
150	38.5	32.48	60	39.9	32.30	25.63
169	38.5	32.48	80	38.6	32.47	25.83
			100	38.6	32.47	25.83
			150	38.5	32.48	25.84
STATION 142						
0	49.5	22.88	0	49.5	22.88	17.59
15	48.3	27.03	10	48.9	25.69	19.82
24	48.0	27.50	20	48.0	27.31	21.15
36	47.0	28.98	40	46.8	29.22	22.74
72	46.0	30.05	60	46.1	29.81	23.25
90	45.2	30.43	80	45.5	30.21	23.61
108	44.9	—				
STATION 143						
0	49.1	24.14	0	49.1	24.14	18.60
15	48.2	26.20	10	48.4	25.59	19.79
30	47.9	27.50	20	48.0	26.75	20.72
49	47.9	—	40	47.9	—	—
STATION 144						
0	48.6	22.70	0	48.6	22.70	17.52
6	48.6	24.81	10	48.6	25.43	19.64
42	47.3	27.41	20	47.8	26.19	20.30
60	46.8	28.39	40	47.3	27.30	21.20
76	46.4	—	60	46.8	28.39	22.09

Observed Values			Interpolated Values			
Depth (ft)	Temp. (°F)	Sal. (‰)	Depth (ft)	Temp. (°F)	Sal. (‰)	$\sigma_t$
STATION 145						
0	49.0	21.37	0	49.0	21.37	16.46
9	48.4	22.52	10	48.4	22.71	17.54
18	48.1	24.88	20	48.0	25.35	19.63
36	47.6	26.38	40	47.5	27.30	21.19
72	47.0	28.37	60	47.1	28.01	21.78
87	46.8	—				
STATION 146						
0	49.0	25.14	0	49.0	25.14	19.39
9	48.8	25.28	10	48.8	25.31	19.54
18	48.3	25.46	20	48.2	25.51	19.74
48	47.8	26.17	40	47.9	26.03	20.38
66	47.7	26.53	60	47.7	26.35	20.43
81	47.4	28.10	80	47.4	27.94	21.69
93	46.7	—				
STATION 147						
0	48.2	26.18	0	48.2	26.18	20.26
18	47.8	26.58	10	48.1	26.30	20.36
27	47.7	27.07	20	47.8	26.69	20.69
48	47.0	28.39	40	47.2	27.82	21.62
69	45.2	29.81	60	46.6	29.38	22.88
78	44.9	29.99	80	44.9	30.01	23.50
90	44.5	30.32				
99	44.5	—				
STATION 148						
0	47.8	26.78	0	47.8	26.78	20.76
9	47.8	26.78	10	47.8	26.80	20.77
24	46.9	27.83	20	47.2	27.36	21.26
42	45.1	29.80	40	45.1	29.70	23.24
69	44.8	30.17	60	44.9	30.02	23.65
96	44.0	30.49	80	44.6	30.27	23.72
104	43.9	—	100	43.9	—	—
STATION 149						
0	46.9	28.24	0	46.9	28.24	21.96
9	46.9	28.46	10	46.9	28.46	22.14
27	47.0	28.46	20	46.8	28.46	22.14
36	44.9	28.91	40	44.8	29.07	22.77
60	44.0	30.25	60	44.0	30.25	23.75
90	42.8	30.59	80	42.9	30.50	24.02
117	42.8	30.68	100	42.8	30.61	24.11
125	42.8	—				
STATION 150						
0	47.2	28.21	0	47.2	28.21	21.92
15	47.2	28.24	10	47.2	28.24	21.93
39	45.1	29.67	20	47.1	28.41	22.06
75	43.1	30.70	40	45.0	29.70	23.25
114	42.7	30.88	60	43.8	30.52	23.98
124	42.7	—	80	43.1	30.70	24.16
			100	42.7	30.79	24.26
STATION 151						
0	46.6	29.33	0	46.6	29.33	22.84
21	46.2	29.34	10	46.5	29.33	22.85
33	45.9	29.63	20	46.2	29.34	22.88
57	44.8	30.14	40	45.8	29.84	23.30
72	43.1	30.52	60	44.6	30.22	23.68
84	43.1	30.52	80	43.1	30.52	24.02
91	43.1	—				



TABLE 2. (Continued)

Observed Values			Interpolated Values			
Depth (ft)	Temp. (°F)	Sal. (‰)	Depth (ft)	Temp. (°F)	Sal. (‰)	$\sigma_t$
STATION 152						
0	46.4	29.43	0	46.4	29.43	22.93
21	44.4	29.43	10	45.1	29.43	23.04
36	44.3	29.43	20	44.4	29.43	23.08
51	44.3	29.43	40	44.3	29.43	23.09
57	44.3	—				
STATION 153						
0	46.5	29.31	0	46.5	29.31	22.83
21	44.7	29.52	10	45.2	29.45	23.04
36	44.5	29.52	20	44.8	29.52	23.12
51	44.4	29.58	40	44.4	29.54	23.16
57	44.4	—				
STATION 154						
0	47.4	29.09	0	47.4	29.09	22.59
9	47.1	29.40	10	47.1	29.41	22.86
45	45.7	29.72	20	46.8	29.50	22.96
66	43.0	30.41	40	45.9	29.62	23.12
76	42.9	—	60	44.8	30.20	23.66
STATION 155						
0	47.8	28.98	0	47.8	28.98	22.47
9	47.7	29.00	10	47.7	29.00	22.50
27	46.8	29.18	20	47.3	29.02	22.54
45	45.9	29.58	40	46.0	29.49	23.01
66	44.7	29.76	60	45.1	29.70	23.24
78	44.3	29.97	80	44.1	—	—
84	43.6	—				
STATION 156						
0	48.1	28.28	0	48.1	28.28	21.90
9	48.1	28.35	10	47.8	28.38	22.00
24	46.7	28.98	20	46.8	28.73	22.36
45	46.4	29.16	40	46.5	29.15	22.71
51	46.2	—				
STATION 157						
0	49.1	24.67	0	49.1	24.67	19.01
9	49.0	24.74	10	49.0	24.81	19.13
18	48.5	25.61	20	48.5	25.72	19.88
30	47.9	26.11	40	47.8	26.68	20.68
54	47.1	27.66	60	47.0	28.15	21.89
69	45.7	29.05				
76	44.5	—				
STATION 158						
0	49.3	25.12	0	49.3	25.12	19.35
6	49.3	25.16	10	49.3	25.36	19.54
24	48.2	26.55	20	48.5	26.16	20.22
51	47.7	28.99	40	47.8	28.23	21.89
75	46.9	29.47	60	47.4	29.09	22.59
99	45.2	30.20	80	46.8	29.51	22.96
111	44.1	30.67	100	45.1	30.23	23.66
117	43.9	—				
STATION 159						
0	48.8	27.24	0	48.8	27.24	21.04
15	48.8	27.83	10	48.8	27.59	21.31
30	46.0	29.23	20	47.4	28.28	21.94
54	43.6	30.84	40	44.9	29.86	23.38
75	42.2	31.37	60	43.2	30.90	24.32
96	42.0	31.49	80	42.1	31.40	24.78
126	41.0	31.83	100	41.9	31.50	24.87
130	41.0	—				

Observed Values			Interpolated Values			
Depth (ft)	Temp. (°F)	Sal. (‰)	Depth (ft)	Temp. (°F)	Sal. (‰)	$\sigma_t$
STATION 160						
0	46.8	29.31	0	46.8	29.31	22.81
9	46.3	29.36	10	46.1	29.40	22.93
21	45.1	29.81	20	45.1	29.77	23.30
45	42.8	30.86	40	42.8	30.67	24.16
87	42.1	31.29	60	42.7	31.03	24.45
114	39.7	31.96	80	42.4	31.21	24.61
147	39.1	32.05	100	41.6	31.56	24.94
151	39.1	—	150	39.1	—	—
STATION 161						
0	42.4	30.84	0	42.4	30.84	24.32
24	42.4	31.09	10	42.4	30.99	24.44
57	42.2	31.38	20	42.4	31.05	24.48
72	40.4	31.85	40	42.3	31.17	24.59
90	39.1	32.29	60	42.1	31.42	24.80
135	39.1	32.36	80	39.5	32.10	25.49
146	39.1	—	100	39.1	32.30	25.67
STATION 162						
0	41.7	31.29	0	41.7	31.29	24.72
18	41.6	31.47	10	41.7	31.39	24.80
36	41.5	31.69	20	41.6	31.50	24.89
45	39.2	31.74	40	41.1	31.70	25.08
57	38.2	31.83	60	38.2	31.88	25.38
81	38.1	32.29	80	38.1	32.26	25.69
117	38.0	32.54	100	38.0	32.42	25.82
123	38.0	—				
STATION 163						
0	40.7	31.85	0	40.7	31.85	25.22
12	40.7	31.89	10	40.7	31.88	25.25
30	40.7	31.91	20	40.7	31.89	25.26
60	39.9	32.03	40	40.5	31.96	25.32
87	39.2	32.09	60	39.9	32.03	25.41
117	38.8	32.38	80	39.6	32.05	25.44
139	38.8	—	100	38.8	32.15	25.57
STATION 164						
0	40.5	31.65	0	40.5	31.65	25.08
21	40.5	31.83	10	40.5	31.78	25.18
48	40.5	31.83	20	40.5	31.82	25.21
60	40.3	32.01	40	40.5	31.83	25.22
75	39.9	32.20	60	40.3	32.01	25.37
90	37.1	32.65	80	39.4	32.35	25.69
104	37.1	—				
STATION 165						
0	40.1	31.51	0	40.1	31.51	24.99
21	40.1	31.62	10	40.1	31.58	25.04
42	40.0	31.65	20	40.1	31.61	25.07
57	40.0	31.69	40	40.0	31.65	25.11
72	34.6	32.12	60	40.0	31.75	25.18
120	33.5	32.21	80	33.4	32.20	25.83
147	33.5	32.21	100	33.7	32.21	25.83
156	33.5	—	150	33.5	—	—

TABLE 2. (Continued)

Observed Values			Interpolated Values			
Depth (ft)	Temp. (°F)	Sal. (‰)	Depth (ft)	Temp. (°F)	Sal. (‰)	$\sigma_t$
STATION 166						
0	38.3	30.17	0	38.3	30.17	24.02
24	38.3	30.25	10	38.3	30.21	24.05
48	38.1	30.41	20	38.3	30.24	24.08
57	37.1	31.53	40	38.1	30.35	24.18
66	33.8	32.36	60	34.0	31.85	25.53
78	34.8	32.39	80	34.9	32.40	25.94
105	33.2	32.43	100	33.9	32.41	25.98
144	29.8	32.52	150	29.7		
155	29.7	—				
STATION 167						
0	40.5	30.59	0	40.5	30.59	24.24
24	40.5	30.86	10	40.5	30.75	24.36
42	40.2	30.86	20	40.5	30.85	24.44
54	39.6	30.90	40	40.3	30.86	24.46
63	39.4	31.02	60	39.5	30.98	24.60
75	35.5	32.05	80	31.5	32.21	25.89
96	30.8	32.29	100	30.8	32.29	25.97
120	30.8	32.29				
127	30.8	—				
STATION 168						
0	39.8	30.59	0	39.8	30.59	24.28
24	39.8	30.70	10	39.8	30.62	24.30
42	39.8	30.86	20	39.8	30.69	24.36
54	39.5	30.90	40	39.8	30.84	24.48
63	33.7	31.36	60	36.4	31.21	24.93
75	30.7	32.07	80	30.5	32.21	25.91
96	30.5	32.36	100	30.5	32.36	26.03
120	30.5	32.38				
131	30.5	—				
STATION 169						
0	38.8	30.01	0	38.8	30.01	23.87
24	38.4	30.08	10	38.6	30.05	23.91
45	38.2	30.19	20	38.5	30.08	23.94
60	31.5	31.69	40	38.3	30.11	23.97
72	30.0	32.20	60	31.5	31.69	25.47
126	29.5	32.47	80	29.5	32.24	25.95
133	29.5	—	100	29.5	32.33	26.02
STATION 170						
0	40.4	30.93	0	40.4	30.93	24.51
30	40.6	31.20	10	40.7	31.01	24.56
60	40.0	31.62	20	40.5	31.10	24.64
75	30.9	32.20	40	40.5	31.31	24.81
99	30.9	32.29	60	40.0	31.62	25.08
132	30.8	32.34	80	30.9	32.21	25.90
144	30.8	—	100	30.9	32.29	25.97
STATION 171						
0	42.7	30.84	0	42.7	30.84	24.30
18	42.2	30.99	10	42.7	30.97	24.40
33	41.9	31.00	20	42.1	30.99	24.46
51	39.0	32.03	40	41.7	31.26	24.70
72	37.8	32.65	60	38.2	31.99	25.47
132	37.5	32.70	80	37.7	32.65	26.02
138	37.5	—	100	37.6	32.67	26.04
STATION 172						
0	43.1	30.57	0	43.1	30.57	24.06
15	43.0	31.09	10	42.9	30.80	24.25
33	39.9	32.18	20	41.8	31.46	24.85
48	38.7	32.48	40	39.1	32.34	25.70
90	38.8	32.63	60	38.8	32.56	25.89
153	38.8	32.70	80	38.8	32.63	25.94
			100	38.8	32.64	25.97
			150	38.8	32.71	26.00

Observed Values			Interpolated Values			
Depth (ft)	Temp. (°F)	Sal. (‰)	Depth (ft)	Temp. (°F)	Sal. (‰)	$\sigma_t$
STATION 173						
0	42.5	27.66	0	42.5	27.66	21.81
15	42.2	29.83	10	42.3	29.14	22.98
27	40.2	31.29	20	42.2	30.40	23.98
36	38.6	32.09	40	39.0	32.24	25.62
57	38.9	32.56	60	38.9	32.56	25.88
99	38.9	32.56	80	38.9	32.56	25.88
144	38.7	32.56	100	38.9	32.56	25.88
STATION 174						
0	43.1	27.68	0	43.1	27.68	21.79
15	42.0	27.85	10	42.7	27.71	21.84
27	39.5	30.77	20	39.9	28.17	22.35
36	38.3	32.07	40	38.1	32.23	25.66
57	38.5	32.47	60	38.8	32.47	25.81
99	38.8	32.48	80	38.8	32.48	25.82
144	38.8	32.52	100	38.8	32.48	25.82
STATION 175						
0	44.5	29.40	0	44.5	29.40	23.06
12	43.0	29.67	10	43.5	29.58	23.25
21	42.7	31.09	20	42.7	31.00	24.42
48	42.5	31.96	40	42.6	31.84	25.09
90	42.1	32.07	60	42.4	32.01	25.24
150	41.8	32.10	80	42.1	32.07	25.30
			100	42.1	32.08	25.31
			150	41.8	32.10	25.35
STATION 176						
0	49.1	24.88	0	49.1	24.88	19.18
18	49.0	24.98	10	49.1	24.90	19.20
30	48.5	26.47	20	49.0	25.11	19.37
45	47.5	27.05	40	47.6	26.92	20.88
84	47.2	28.62	60	47.4	27.54	21.38
111	46.0	30.34	80	47.3	28.42	22.08
			100	46.1	29.62	23.10
STATION 177						
0	44.8	31.35	0	44.8	31.35	24.56
21	44.7	31.35	10	44.8	31.35	24.56
36	43.9	31.36	20	44.7	31.35	24.56
60	43.4	31.51	40	43.7	31.40	24.67
102	43.3	31.69	60	43.4	31.51	24.78
135	43.2	31.71	80	43.4	31.60	24.85
			100	43.3	31.65	24.90
STATION 178						
0	45.0	31.08	0	45.0	31.08	24.33
9	45.0	31.09	10	45.0	31.10	24.35
36	43.6	31.35	20	44.8	31.20	24.44
54	43.1	31.42	40	43.4	31.38	24.68
84	42.5	31.85	60	43.1	31.55	24.83
120	42.4	31.87	80	42.5	31.84	25.10
162	42.4	31.87	100	42.5	31.85	25.11
			150	42.4	31.87	25.12
STATION 179						
0	44.1	31.36	0	44.1	31.36	24.61
15	44.0	31.47	10	44.0	31.42	24.66
30	43.7	31.58	20	44.0	31.50	24.73
45	40.8	31.80	40	41.3	31.78	25.13
69	39.8	31.83	60	40.1	31.81	25.22
108	38.3	32.03	80	39.3	31.90	25.33
150	37.9	32.10	100	38.8	32.01	25.45
158	37.8	—	150	37.9	32.10	25.56

TABLE 2. (Continued)

Observed Values			Interpolated Values			
Depth (ft)	Temp. (°F)	Sal. (‰)	Depth (ft)	Temp. (°F)	Sal. (‰)	$\sigma_t$
STATION 180						
0	44.8	30.99	0	44.8	30.99	24.27
18	44.7	31.06	10	44.8	31.01	24.29
36	43.4	31.24	20	44.5	31.09	24.37
51	41.2	31.40	40	43.2	31.28	24.61
63	40.5	31.82	60	40.7	31.79	25.17
90	40.3	31.87	80	40.4	31.86	25.24
123	40.0	32.01	100	40.2	31.90	25.28
STATION 181						
0	44.9	31.29	0	44.9	31.29	24.50
15	44.8	31.40	10	44.9	31.26 <sup>38</sup>	24.57
30	43.9	31.49	20	44.8	31.41	24.60
42	42.9	31.64	40	43.1	31.60	24.86
60	41.5	31.73	60	41.5	31.73	25.07
90	40.7	31.91	80	40.9	31.88	25.22
120	39.9	32.03	100	40.5	31.99	25.34
STATION 182						
0	45.9	29.69	0	45.9	29.69	23.17
9	45.9	29.70	10	45.9	29.70	23.18
27	44.7	29.72	20	45.9	29.71	23.19
51	41.9	31.55	40	43.0	30.99	24.40
81	41.9	31.75	60	41.9	31.74	25.05
111	41.9	31.75	80	41.9	31.75	25.06
			100	41.9	31.75	25.06
STATION 183						
0	46.5	30.07	0	46.5	30.07	23.42
18	46.5	30.35	10	46.5	30.25	23.56
36	46.4	30.53	20	46.4	30.38	23.67
51	45.9	30.66	40	46.4	30.59	23.84
75	45.4	30.91	60	45.6	30.75	24.02
STATION 184						
0	46.0	30.35	0	46.0	30.35	23.68
24	45.8	31.02	10	45.9	30.68	23.95
69	44.9	31.20	20	45.8	31.00	24.20
90	44.9	31.27	40	45.5	31.10	24.30
129	44.2	31.53	60	45.1	31.17	24.39
165	44.2	31.55	80	44.9	31.21	24.44
			100	44.7	31.33	24.55
			150	44.2	31.55	24.75
STATION 185						
0	44.6	31.56	0	44.6	31.56	24.73
21	43.1	31.74	10	44.2	31.68	24.86
36	42.1	31.87	20	44.1	31.74	24.91
54	42.0	32.14	40	42.0	31.94	25.21
75	41.9	32.09?	60	42.0	32.15?	25.28?
90	41.2	32.18	80	41.9	32.19	25.32
120	39.8	32.20	100	40.7	32.19	25.49
159	39.6	32.20	150	39.7	32.20	25.55
STATION 186						
0	47.9	26.83	0	47.9	26.83	20.79
9	47.2	28.31	10	47.2	28.53	22.17
24	46.3	30.91	20	46.4	30.45	23.73
48	45.7	31.38	40	45.8	31.37	24.50
81	45.2	31.40	60	45.5	31.38	24.52
108	45.1	31.40	80	45.2	31.39	24.56
150	45.1	31.44	100	45.1	31.40	24.57
			150	45.1	31.44	24.61
STATION 187						
0	49.9	23.89	0	49.9	23.89	17.70
21	44.8	28.44	10	48.1	25.97	20.11
30	44.6	31.02	20	44.8	28.26	22.14
57	44.3	31.60	40	44.6	31.37	24.58
87	44.1	31.83	60	44.2	31.64	24.83
132	44.1	31.85	80	44.2	31.80	24.95
162	44.1	31.85	100	44.1	31.82	24.97
			150	44.1	31.85	25.00
STATION 188						
0	45.6	31.33	0	45.6	31.33	24.48
15	45.5	31.67	10	45.6	31.59	24.68
27	44.8	31.83	20	45.1	31.73	24.86
48	42.8	32.21	40	43.7	32.17	25.27
66	37.5	32.25	60	40.0	32.30	25.43
90	36.9	32.25	80	36.7	32.25	25.74
162	36.7	32.25	100	36.5	32.25	25.76
			150	36.7	32.25	25.75
STATION 189						
0	45.1	31.67	0	45.1	31.69	24.79
15	45.1	31.73	10	45.1	31.70	24.81
24	45.0	31.80	20	45.1	31.79	24.88
45	41.3	32.12	40	42.7	32.09	25.28
69	39.4	32.32	60	40.0	32.30	25.61
93	39.3	32.32	80	39.3	32.32	25.67
142	38.2	32.34	100	39.2	32.33	25.68
STATION 190						
0	45.6	31.67	0	45.6	31.67	24.75
24	45.6	31.69	10	45.6	31.68	24.75
51	45.4	31.80	20	45.6	31.69	24.76
66	43.1	32.00	40	45.6	31.71	24.78
84	40.3	32.18	60	44.9	31.89	24.97
99	37.8	32.18	80	40.6	32.16	25.47
126	36.3	32.18	100	37.6	32.18	25.64
STATION 191						
0	45.9	31.67	0	45.9	31.67	24.72
24	45.9	31.67	10	45.9	31.67	24.72
48	45.9	31.69	20	45.9	31.67	24.72
66	45.0	32.01	40	45.9	31.68	24.73
90	40.1	32.18	60	45.1	31.91	24.97
120	38.9	32.21	80	41.4	32.11	25.38
126	38.8	—	100	39.8	32.18	25.53
STATION 192						
0	45.8	31.60	0	45.8	31.60	24.67
24	45.7	31.82	10	45.8	31.79	24.82
45	45.7	31.82	20	45.8	31.82	24.85
60	45.0	31.98	40	45.7	31.82	24.85
75	42.9	32.03	60	45.0	31.98	25.04
87	38.4	32.07	80	42.0	32.06	25.30
114	37.1	32.09	100	37.2	32.08	25.58
STATION 193						
0	44.9	31.71	0	44.9	31.71	24.83
6	42.0	31.74	10	37.4	31.76	25.32
12	37.1	31.76	20	36.9	31.89	25.44
24	36.8	31.94	40	36.2	31.96	25.53
48	36.1	31.98	60	36.0	31.99	25.56
87	35.7	32.10	80	35.8	32.02	25.60



TABLE 2. (Continued)

Observed Values			Interpolated Values			
Depth (ft)	Temp. (°F)	Sal. (‰/‰)	Depth (ft)	Temp. (°F)	Sal. (‰/‰)	$\sigma_t$
STATION 194						
0	45.3	31.42	0	45.3	31.42	24.57
12	45.3	31.51	10	45.3	31.51	24.65
24	45.2	31.51	20	45.3	31.51	24.65
39	40.5	31.55	40	40.0	31.55	25.02
66	33.3	32.05	60	33.8	32.00	25.65
114	33.1	32.05	80	33.4	32.05	25.70
			100	33.2	32.05	25.71
STATION 195						
0	46.5	31.31	0	46.5	31.31	24.40
24	46.4	31.33	10	46.5	31.31	24.40
51	46.3	31.33	20	46.4	31.32	24.42
69	42.0	31.51	40	46.3	31.33	24.43
96	36.1	31.71	60	46.2	31.40	24.49
114	36.1	31.73	80	36.7	31.64	25.26
			100	36.1	31.72	25.34
STATION 196						
0	46.5	31.17	0	46.5	31.17	24.28
24	46.5	31.18	10	46.5	31.17	24.28
51	46.2	31.27	20	46.5	31.18	24.29
66	45.8	31.29	40	46.3	31.21	24.34
84	38.1	31.35	60	46.1	31.28	24.40
96	38.1	31.42	80	38.4	31.34	24.93
115	38.1	—				
STATION 197						
0	44.9	30.81	0	44.9	30.81	24.12
24	44.9	30.95	10	44.9	30.90	24.20
48	44.8	31.00	20	44.9	30.94	24.22
72	44.7	31.00	40	44.8	31.00	24.28
96	44.6	31.00	60	44.8	31.00	24.28
			80	44.7	31.00	24.29
STATION 198						
0	45.1	30.99	0	45.1	30.99	24.26
15	45.1	31.00	10	45.1	31.00	24.27
33	45.1	31.27	20	45.1	31.03	24.30
60	45.1	31.27	40	45.1	31.27	24.48
84	45.0	31.27	60	45.1	31.27	24.48
			80	45.0	31.27	24.49
STATION 199						
0	44.9	31.00	0	44.9	31.00	24.27
15	44.8	31.00	10	44.8	31.00	24.28
33	44.8	31.02	20	44.8	31.01	24.29
60	44.8	31.06	40	44.8	31.03	24.30
84	44.8	31.06	60	44.8	31.06	24.33
			80	44.8	31.06	24.33
STATION 200						
0	45.7	31.15	0	45.7	31.15	24.33
21	45.7	31.17	10	45.7	31.16	24.34
42	45.7	31.17	20	45.7	31.17	24.35
63	45.7	31.17	40	45.7	31.17	24.35
84	45.6	31.18	60	45.7	31.17	24.35
			80	45.6	31.18	24.36
STATION 201						
0	46.6	31.36	0	46.6	31.36	24.43
21	46.6	31.36	10	46.6	31.36	24.43
42	46.6	31.36	20	46.6	31.36	24.43
63	46.6	31.40	40	46.6	31.36	24.43
84	46.5	31.44	60	46.6	31.39	24.46
			80	46.5	31.43	24.49

Observed Values			Interpolated Values			
Depth (ft)	Temp. (°F)	Sal. (‰/‰)	Depth (ft)	Temp. (°F)	Sal. (‰/‰)	$\sigma_t$
STATION 202						
0	46.5	31.22	0	46.5	31.22	24.32
15	46.5	31.35	10	46.5	31.31	24.39
45	46.4	31.35	20	46.5	31.35	24.43
75	46.2	31.36	40	46.4	31.35	24.44
90	46.1	31.36	60	46.3	31.35	24.45
			80	46.2	31.36	24.46
STATION 203						
0	44.6	31.36	0	44.6	31.36	24.58
21	44.5	31.51	10	44.6	31.46	24.66
45	44.3	31.58	20	44.5	31.51	24.70
66	44.3	31.58	40	44.4	31.58	24.76
90	44.2	31.58	60	44.3	31.58	24.77
			80	44.2	31.58	24.78
STATION 204						
0	45.1	31.40	0	45.1	31.40	24.57
12	45.1	31.49	10	45.1	31.49	24.64
36	45.1	31.55	20	45.1	31.51	24.66
60	45.1	31.55	40	45.1	31.55	24.69
84	45.1	31.55	60	45.1	31.55	24.69
			80	45.1	31.55	24.69
STATION 205						
0	44.7	31.53	0	44.7	31.53	24.70
27	44.4	31.53	10	44.6	31.53	24.71
54	44.2	31.55	20	44.4	31.53	24.72
81	44.1	31.55	40	44.2	31.54	24.74
108	44.1	31.55	60	44.2	31.55	24.75
			80	44.1	31.55	24.76
			100	44.1	31.55	24.76
STATION 206						
0	45.1	31.53	0	45.1	31.53	24.67
15	45.0	31.53	10	45.1	31.53	24.67
30	44.7	31.53	20	44.9	31.53	24.69
57	44.5	31.55	40	44.6	31.54	24.72
84	44.4	31.55	60	44.5	31.55	24.74
111	44.3	31.55	80	44.5	31.55	24.74
			100	44.4	31.55	24.74
STATION 207						
0	47.0	31.31	0	47.0	31.31	24.36
30	46.9	31.36	10	47.0	31.31	24.36
66	46.5	31.56	20	47.0	31.33	24.37
84	44.1	31.60	40	46.9	31.40	24.43
96	36.5	31.60	60	46.7	31.44	24.48
120	34.8	31.76	80	45.3	31.60	24.72
149	34.7	31.76	100	36.1	31.60	25.25
STATION 208						
0	48.1	31.51	0	48.1	31.51	24.42
27	48.1	31.56	10	48.1	31.52	24.43
66	47.5	31.58	20	48.1	31.54	24.45
90	32.2	31.78	40	48.0	31.57	24.48
120	32.0	31.94	60	47.6	31.58	24.52
168	32.0	32.03	80	41.8	31.69	24.94
			100	32.1	31.84	25.52
			150	32.0	32.00	25.71
STATION 209						
0	48.1	31.58	0	48.1	31.58	24.48
30	48.1	31.74	10	48.1	31.66	24.54
69	47.1	31.74	20	48.1	31.70	24.57
87	36.2	32.21	40	48.1	31.74	24.60
120	36.1	32.41	60	47.4	31.74	24.66
162	36.1	32.45	80	47.1	32.05	24.93
			100	36.2	32.32	25.82
			150	36.1	32.43	25.91

TABLE 2. (Continued)

Observed Values			Interpolated Values			
Depth (ft)	Temp. (°F)	Sal. (‰)	Depth (ft)	Temp. (°F)	Sal. (‰)	$\sigma_t$
STATION 210						
0	47.9	31.36	0	47.9	31.36	24.32
24	47.9	31.38	10	47.9	31.37	24.33
45	47.5	31.46	20	47.9	31.38	24.34
63	46.8	31.46	40	47.9	31.46	24.40
84	34.6	31.96	60	46.9	31.46	24.48
120	34.7	32.23	80	34.7	31.85	25.50
162	34.9	32.23	100	34.5	32.17	25.76
			150	34.9	32.23	25.80
STATION 211						
0	47.5	31.87	0	47.5	31.87	24.75
24	47.6	31.96	10	47.5	31.91	24.78
45	46.7	32.07	20	47.6	31.95	24.81
60	46.5	32.14	40	47.2	32.03	24.90
75	35.5	32.36	60	46.5	32.14	25.04
126	35.7	32.41	80	35.3	32.38	25.90
165	35.6	32.41	100	35.5	32.40	25.91
			150	35.7	32.41	25.91
STATION 212						
0	47.6	32.03	0	47.6	32.03	24.87
33	47.5	32.10	10	47.6	32.06	24.84
69	46.0	32.23	20	47.6	32.09	24.92
75	38.1	32.39	40	47.0	32.11	24.98
84	37.1	32.41	60	46.1	32.18	25.11
120	36.9	32.41	80	37.2	32.40	25.84
174	36.8	32.41	100	36.6	32.41	25.88
			150	36.9	32.41	25.86
STATION 213						
0	47.8	31.94	0	47.8	31.94	24.78
27	47.7	31.98	10	47.8	31.95	24.79
48	47.6	32.05	20	47.7	31.97	24.82
75	44.2	32.07	40	47.7	32.00	24.84
90	40.0	32.20	60	46.8	32.06	24.96
126	36.2	32.39	80	43.1	32.10	25.25
165	36.0	32.38	100	38.0	32.21	25.65
			150	36.1	32.32	25.82
STATION 214						
0	48.8	32.03	0	48.8	32.03	24.77
24	48.5	32.05	10	48.7	32.04	24.78
60	48.1	32.07	20	48.6	32.05	24.80
120	40.2	32.21	40	48.3	32.06	24.83
159	38.0	32.34	60	48.1	32.07	24.86
240	36.3	32.43	80	47.3	32.10	24.94
330	36.3	32.48	100	44.0	32.17	25.26
			150	38.5	32.33	25.72
			200	36.2	32.39	25.87
			250	36.3	32.43	25.90
			300	36.4	32.46	25.92
STATION 215						
0	49.3	32.07	0	49.3	32.07	24.75
39	48.3	32.12	10	49.2	32.08	24.76
66	47.8	32.21	20	49.1	32.10	24.79
123	39.2	32.25	40	48.3	32.12	24.88
216	37.2	32.57	60	48.1	32.20	24.96
330	37.5	32.75	80	47.7	32.22	25.01
441	37.4	32.88	100	43.2	32.24	25.36
			150	38.7	32.33	25.71
			200	37.5	32.52	25.92
			250	37.5	32.67	26.04
			300	37.5	32.71	26.07
			400	37.4	32.83	26.17

Observed Values			Interpolated Values			
Depth (ft)	Temp. (°F)	Sal. (‰)	Depth (ft)	Temp. (°F)	Sal. (‰)	$\sigma_t$
STATION 216						
0	49.6	32.10	0	49.6	32.10	24.74
48	48.8	32.10	10	49.3	32.10	24.76
99	47.0	32.32	20	49.2	32.10	24.78
120	40.4	32.39	40	48.9	32.10	24.80
171	39.1	32.47	60	48.6	32.15	24.88
261	37.2	32.70	80	48.3	32.23	24.97
369	37.0	32.90	100	46.5	32.32	25.08
			150	39.3	32.41	25.74
			200	38.0	32.52	25.90
			250	37.2	32.70	26.08
			300	37.1	32.78	26.14
STATION 217						
0	49.1	32.03	0	49.1	32.03	24.74
39	49.1	32.03	10	49.1	32.03	24.74
72	48.8	32.09	20	49.1	32.03	24.74
99	44.0	32.09	40	49.1	32.03	24.74
132	40.2	32.45	60	48.9	32.05	24.78
279	37.3	32.77	80	48.6	32.09	24.83
420	37.1	32.92	100	43.0	32.09	25.26
			150	39.8	32.52	25.80
			200	38.5	32.63	25.95
			250	37.9	32.70	26.04
			300	37.2	32.79	26.14
			400	37.1	32.89	26.23
STATION 218						
0	49.7	31.94	0	49.7	31.94	24.62
48	49.5	32.05	10	49.7	31.99	24.66
90	49.1	32.05	20	49.7	32.01	24.67
117	44.8	32.20	40	49.7	32.04	24.69
150	40.9	32.38	60	49.2	32.05	24.74
264	38.6	32.66	80	49.2	32.05	24.74
420	37.5	32.84	100	49.1	32.09	24.78
			150	40.9	32.38	25.62
			200	39.9	32.50	25.78
			250	38.8	32.61	25.93
			300	37.8	32.68	26.03
			400	37.6	32.80	26.14
STATION 219						
0	48.9	31.87	0	48.9	31.87	24.63
51	48.8	31.89	10	48.9	31.87	24.63
90	48.6	31.89	20	48.9	31.88	24.64
150	42.3	32.54	40	48.9	31.88	24.64
216	41.1	32.72	60	48.8	31.89	24.66
300	38.7	32.99	80	48.7	31.89	24.67
441	—	—	100	48.5	31.91	24.70
			150	42.3	32.54	25.66
			200	41.2	32.70	25.86
			250	40.2	32.83	26.02
			300	38.7	32.99	26.18
STATION 220						
0	47.8	32.03	0	47.8	32.03	24.85
45	47.6	32.05	10	47.7	32.03	24.86
90	46.4	32.05	20	47.7	32.04	24.87
150	43.6	32.38	40	47.7	32.05	24.88
222	41.9	32.72	60	47.2	32.05	24.92
312	38.6	33.08	80	47.0	32.05	24.94
420	38.5	33.08	100	45.0	32.09	25.12
			150	43.6	32.38	25.45
			200	42.0	32.60	25.73
			250	41.0	32.74	25.90
			300	39.0	33.02	26.24
			400	38.5	33.08	26.31

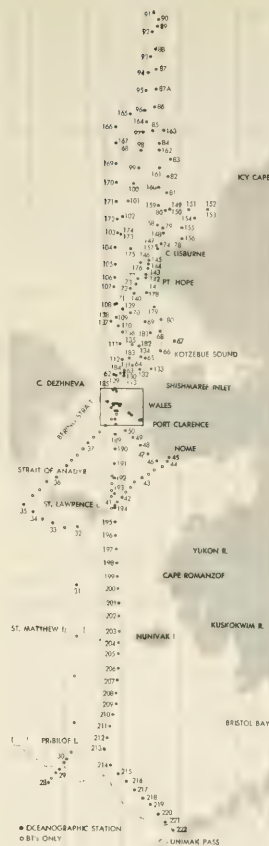
TABLE 2. (Continued)

Observed Values			Interpolated Values			$\sigma_t$
Depth (ft)	Temp. (°F)	Sal. (‰/‰)	Depth (ft)	Temp. (°F)	Sal. (‰/‰)	
STATION 221						
0	48.6	32.21	0	48.6	32.21	24.92
30	48.0	32.38	10	48.6	32.29	24.98
69	46.2	32.68	20	48.6	32.32	25.01
120	41.1	32.90	40	47.4	32.45	25.21
240	40.1	33.13	60	47.0	32.60	25.36
360	38.8	33.39	80	46.0	32.71	25.54
444	38.3	33.42	100	43.6	32.82	25.80
			150	41.1	32.93	26.06
			200	40.4	33.06	26.19
			250	40.1	33.17	26.29
			300	39.5	33.27	26.41
			400	38.3	33.40	26.58

Observed Values			Interpolated Values			
Depth (ft)	Temp. (°F)	Sal. (‰/‰)	Depth (ft)	Temp. (°F)	Sal. (‰/‰)	$\sigma_t$
STATION 222						
0	48.6	32.05	0	48.6	32.05	24.80
39	47.2	32.43	10	48.5	32.13	24.86
81	45.4	32.57	20	48.1	32.35	25.08
141	43.1	32.83	40	47.2	32.43	25.22
201	42.0	32.90	60	45.8	32.51	25.39
300	41.7	32.90	80	45.4	32.57	25.48
360	40.8	33.19	100	45.1	32.63	25.54
			150	42.9	32.84	25.76
			200	42.0	32.90	25.94
			250	41.8	32.90	25.98
			300	41.7	32.90	25.99



Figure 1. Location of stations, summer 1949: eastern Bering and eastern Chukchi Seas







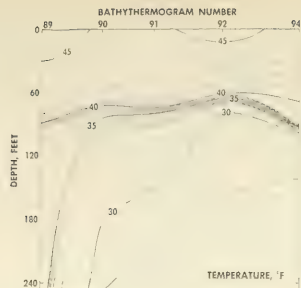
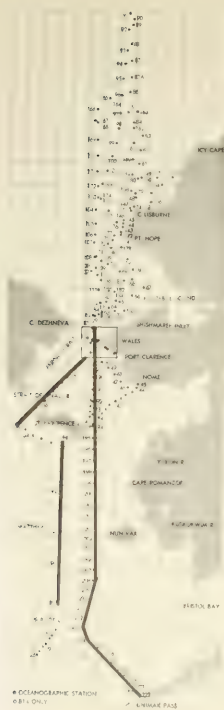


Figure 2. Vertical section, Pribilof Islands to St. Lawrence Islands, 27 July to 28 July 1949, temperature.

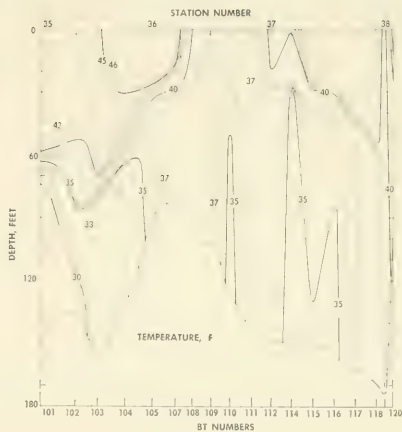


Figure 3. Vertical section, Strait of Anadyr to Bering Strait 29 July to 30 July 1949, temperature.

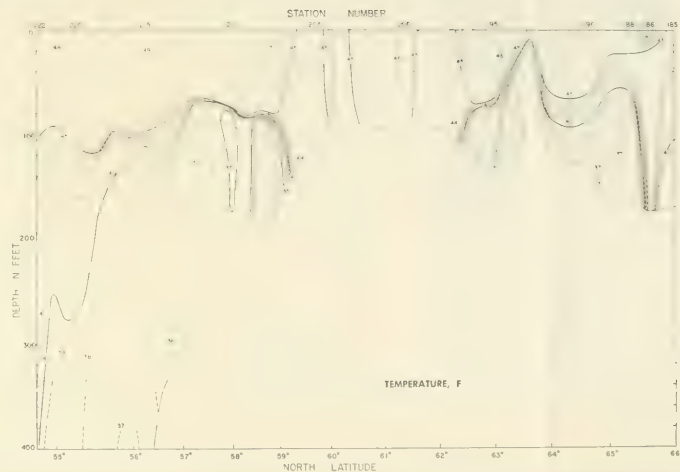


Figure 4. Vertical section, Unimak Pass, Pribilof Islands, St. Lawrence Islands, Bering Strait, 26 August to 30 August 1949, temperature, salinity, and density.

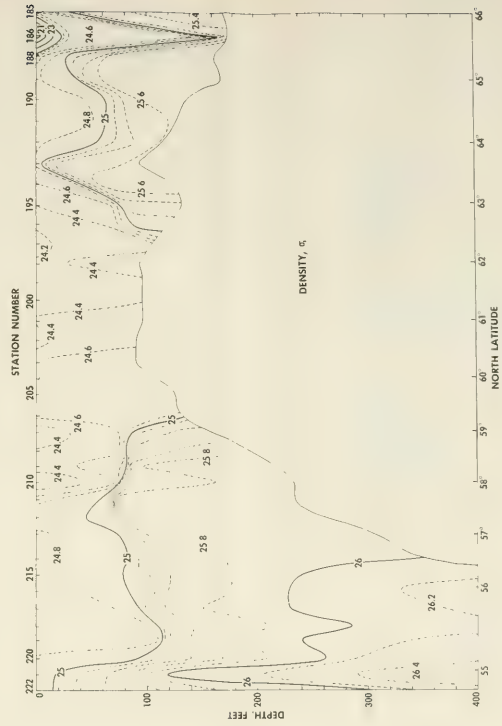
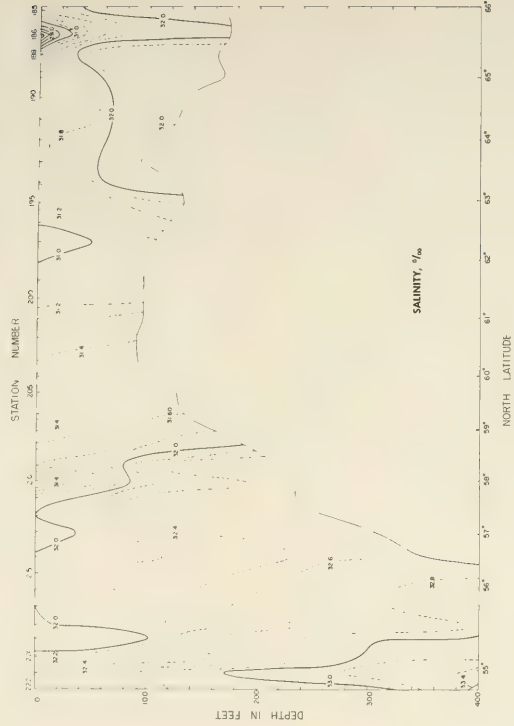
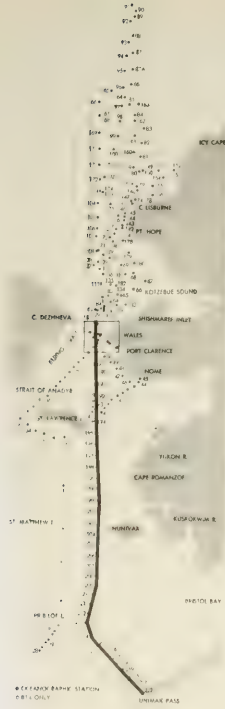
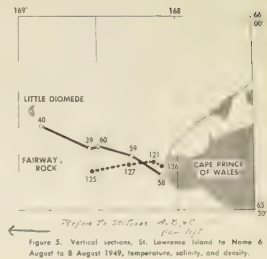
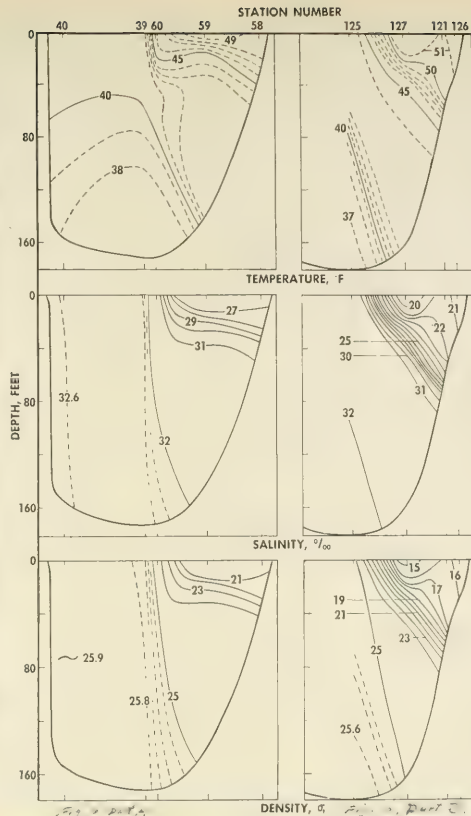
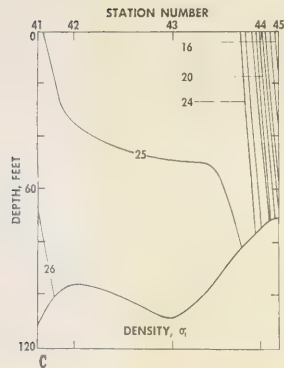
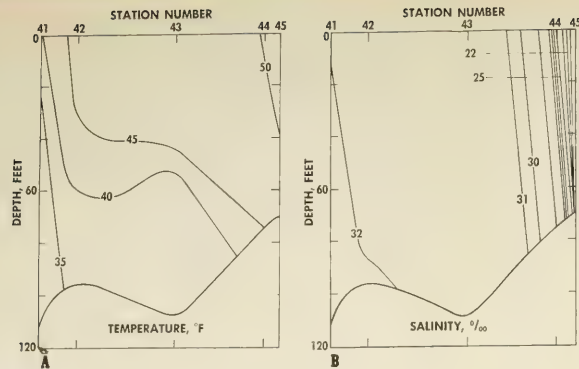


Figure 4. Vertical sections, Unimak Pass. Principal Islands, St. Lawrence Islands, Baring Strait, 26 August to 30 August 1949, temperature, salinity, and density.





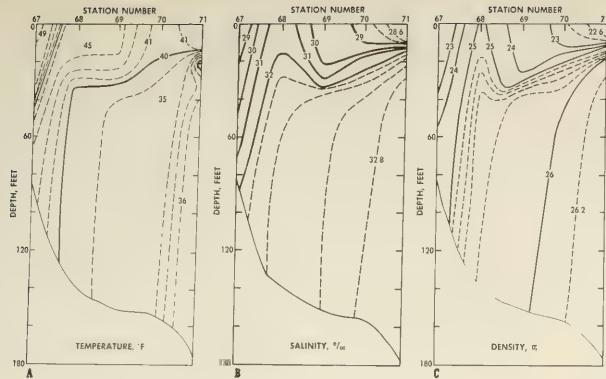


Figure 7



Figure 8

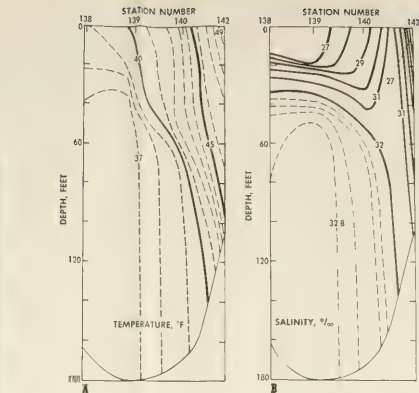
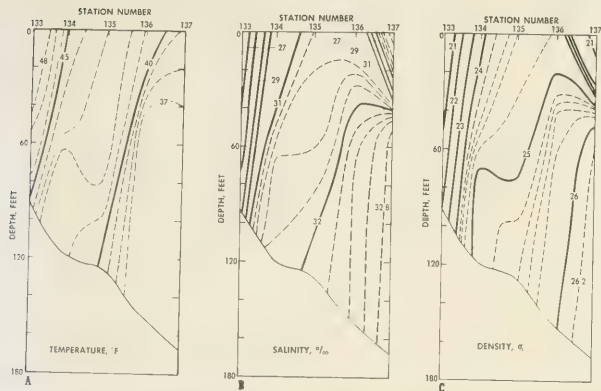
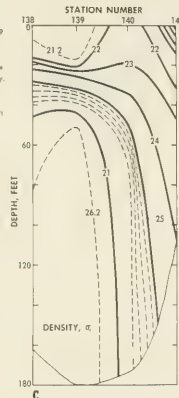


Figure 9

Figure 7. Vertical sections, Kotzebue Sound 10 August 1949, temperature, salinity, and density.

Figure 8. Vertical sections, Shishmarof Inlet to western Kotzebue Sound 20 August to 21 August 1949, temperature, salinity, and density.

Figure 9. Vertical sections, western Kotzebue Sound to Pt Hope 21 August 1949, temperature, salinity, and density.







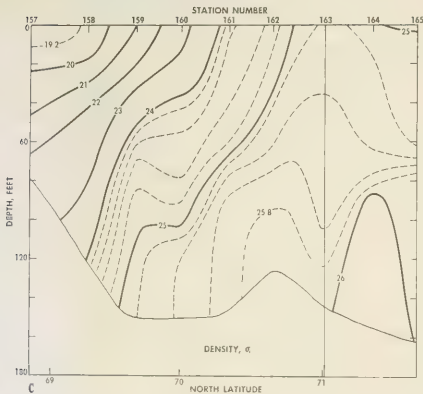
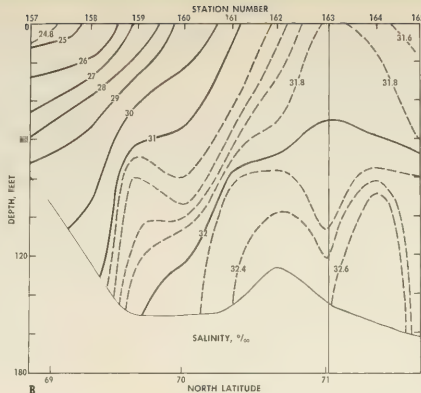
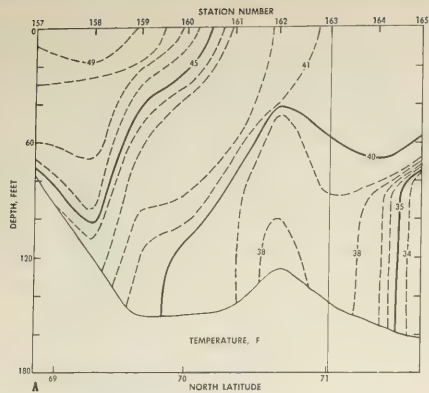
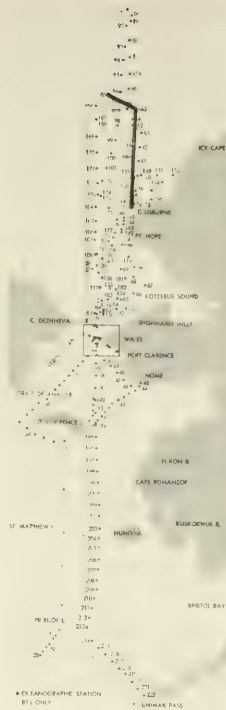


Figure 11. Vertical sections, Cape Lisburne northward to 71.3°N 23 August to 24 August 1949, temperature, salinity, and density



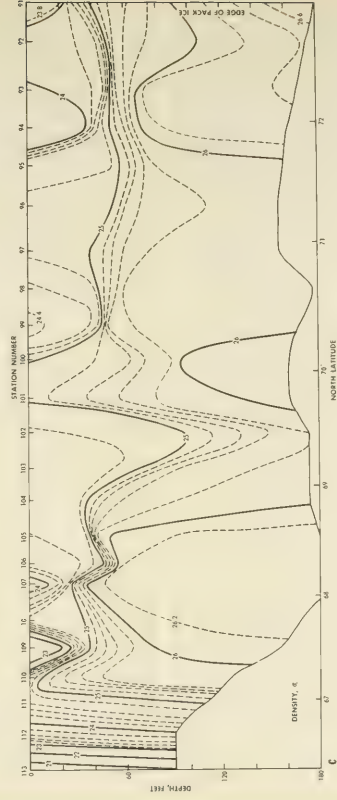
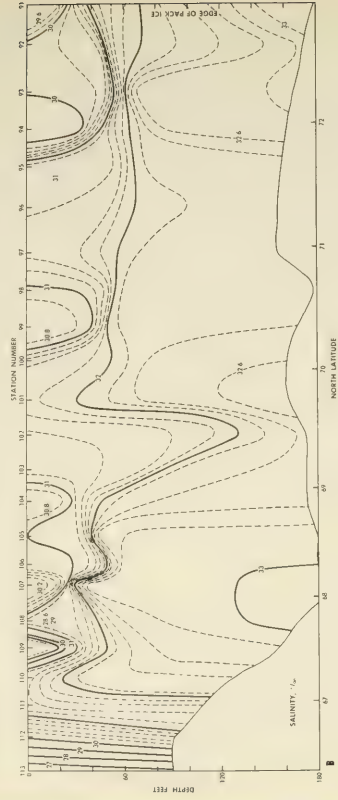
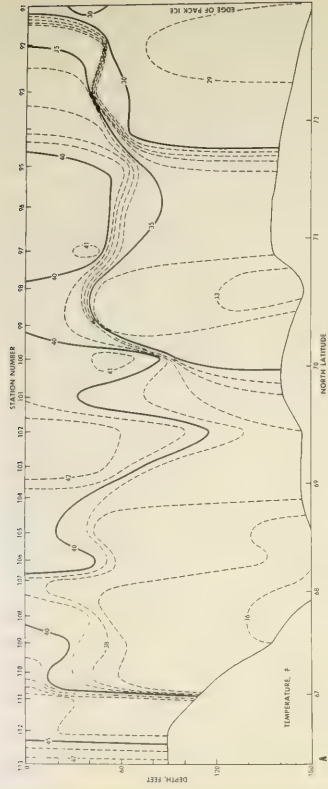
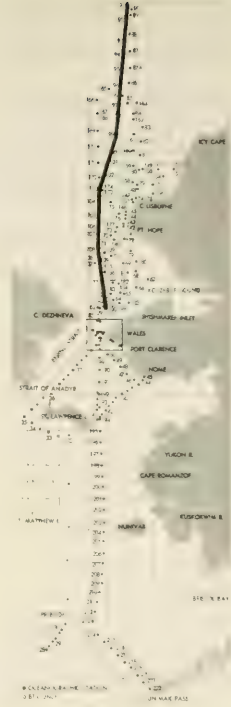


Figure 12. Vertical section, surface Bering Strait to pack ice 13 August to 15 August 1942, temperature, salinity, and density.



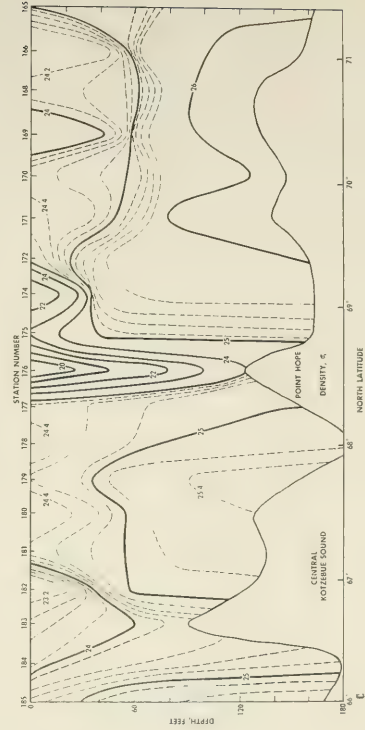
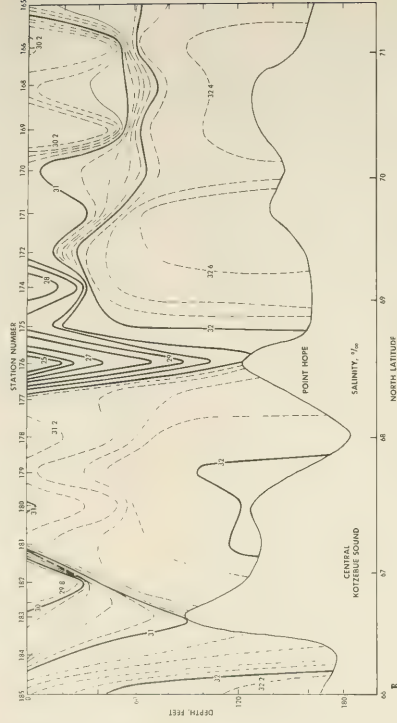
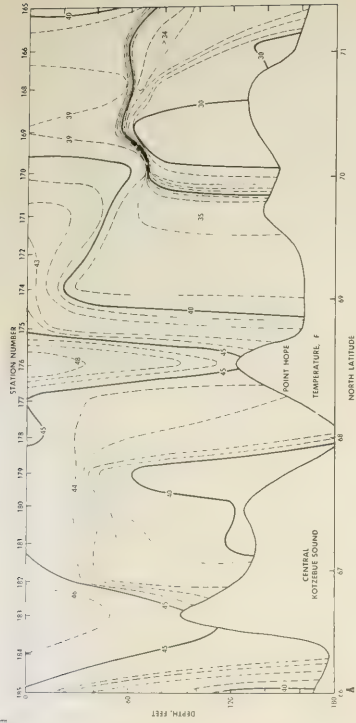
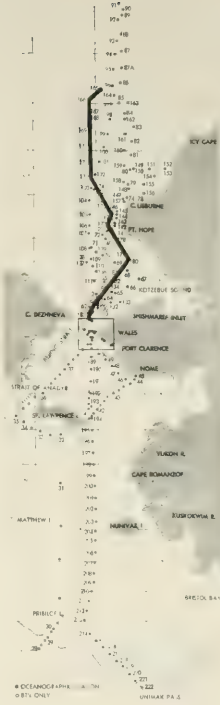


Figure 13. Vertical sections, Bereng Strait, Kotzebue Sound, Pt. Hope and northward to 71.3°N, 24 August to 26 August 1949, temperature, salinity, and density.



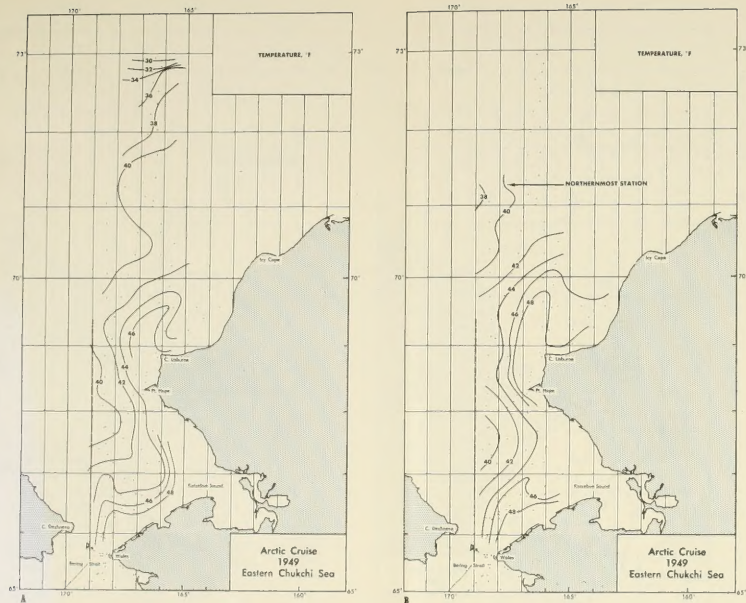


Figure 14. Horizontal sections showing surface temperature in the Chukchi Sea: (A) 9 August to 15 August 1949, Stations 61-113, and (B) 20 August to 26 August 1949, Stations 120-185.

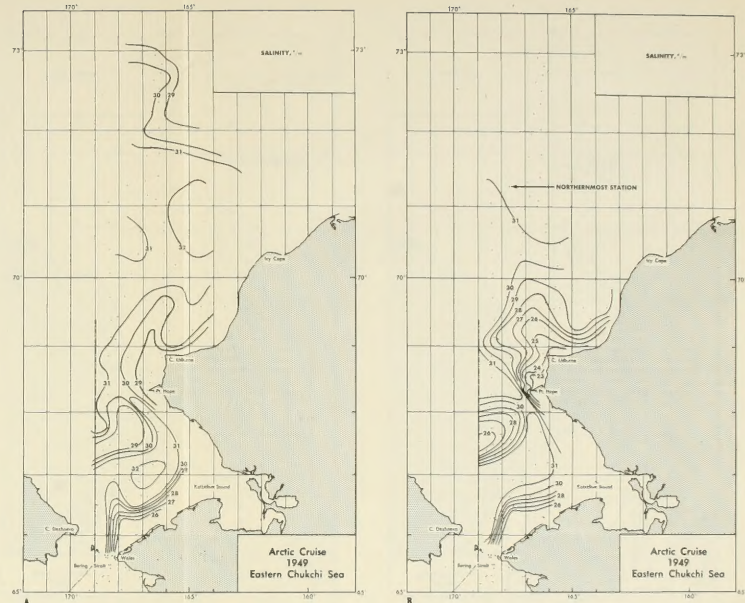


Figure 15. Horizontal sections showing surface salinity in the Chukchi Sea: (A) 9 August to 15 August 1949, Stations 61-113, and (B) 20 August to 26 August 1949, Stations 120-185.



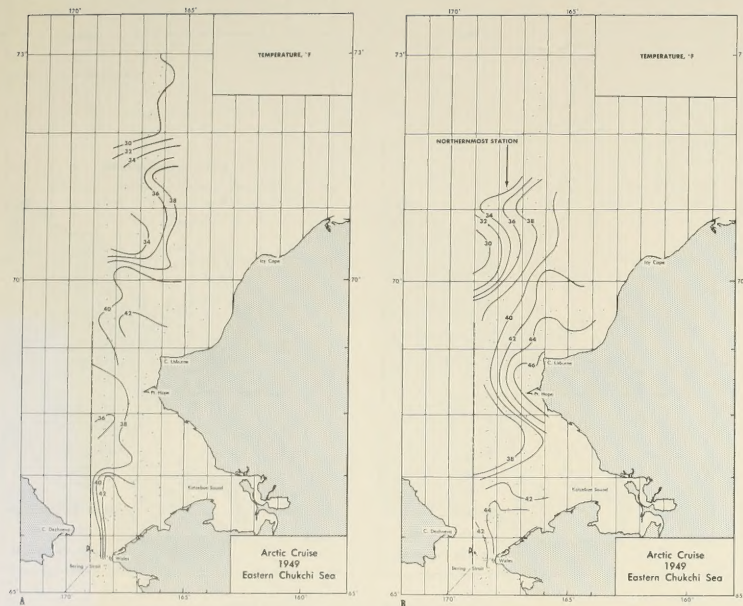


Figure 16. Horizontal sections showing temperature at 80 feet in the Chukchi Sea: (A) 9 August to 15 August 1949, Stations 61-113; and (B) 20 August to 26 August 1949, Stations 128-185.

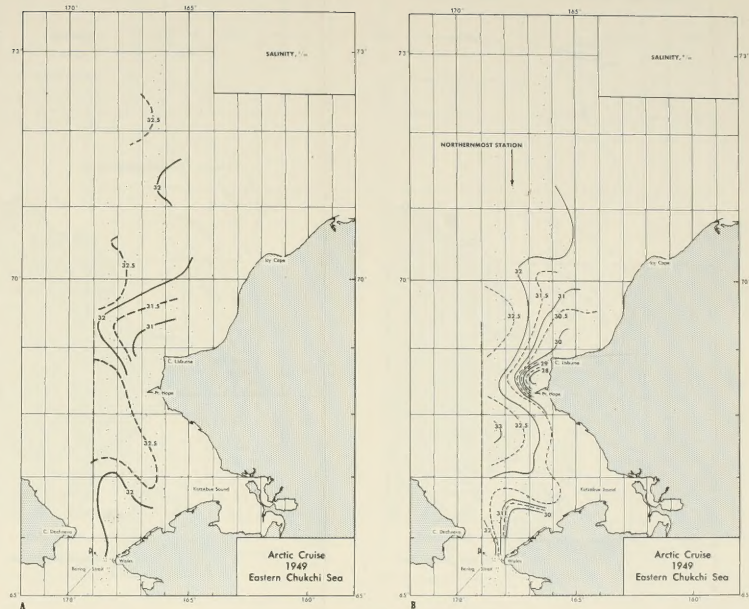


Figure 17. Horizontal sections showing salinity at 80 feet in the Chukchi Sea: (A) 9 August to 15 August 1949, Stations 61-113; and (B) 20 August to 26 August 1949, Stations 128-185.

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